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THE CHANGING COMMERCIAL FARM MARKET FOR INSURANCE

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1. Introduction

No one knows exactly what changes will occur within the business structure of commercial farm firms during the next 12 years. Change is expected and this change will have an effect on the farm insurance market. This report is an attempt to forecast and project what is expected to happen to selected commercial farm firms by the year 1975.

A forecast is a conjecture about the future whereas a projection is the extension of a trend. The use of forecasting and projecting yields results somewhat less indicative than a forecast and less rigid than a projection.

Assumptions are necessary and do influence the predictions made. If conditions assumed should be modified seriously the validity of the prediction is influenced.

Major assumptions were:

1. Population of the United States will increase to 210 million people by 1975.

2. The labor force and employment levels will be commensurate with population growth. Unemployment will average 4 to 5 percent of the available labor force.

3. Labor productivity will continue to develop at its present rate. Even with a shorter work week, real income per capita is expected to increase by more than 50 percent.

4. No national or international catastrophe such as major war, or drought, that will seriously affect the United States, is expected. Such an event could affect population growth, economic development and political stability which in turn would affect the development of the farm business unit.

5. Prices are assumed to remain at 1963 levels for agriculture and for the economy. Projections were made in terms of constant current dollars. This assumption entails the belief that the federal government, under either party, is committed to maintaining "reasonable" prosperity. Governmental policy was assumed to have the same influence in the future as at present.

6. The existing level of insurance purchases was used for the 1975 projection. It was assumed that farm operators would continue to buy the same amount of protection but would not increase it.

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Insurance is a means whereby a farm operator can reduce variations in annual net farm income. Net farm income is a function of receipts and inventory increases minus expenditures, depreciation, and inventory decreases. Insurance can be utilized by a farm operator to supplement income or to decrease necessary expenditures in times of loss.

A farm operator has the possibility of using either formal insurance protection, involving the contracting of an external agent to share his risk, or informal insurance protection requiring the maintenance of a reserve that may be used in times of adversity. Cash, excess equipment, carryover of crops, timber reserves, high equity, and enterprise diversification are frequently used as informal insurance protection. Either formal or informal insurance coverage is a cost to the farm business. The first necessitates an actual cash outlay and the second requires that some available resource inputs be withheld from production.

Hazards and coverage considered, in this study, are those of a formal nature. Over time we have observed some shifting from the informal to the formal coverages and it is anticipated that this shift will continue. Hazards that can usually be handled most desirably with formal insurance coverages are presented as expected to exist by 1975.

2. Types of Farming

a) Criteria for Establishing Generalized Types of Farming

It was necessary to develop 12 generalized "types of farming" areas in order to have a basis for representing farming in the United States in a realistic manner. The relative importance of specific enterprises, organizational characteristics and population distribution were the major factors considered in delineating the 12 regions (see Figure 1).

Modal or typical farm organizations were developed for the following generalized

types of farming:

Northeast Dairy	Piedmont Cotton
Wisconsin Dairy	Delta Cotton
Cash Grain--Corn Belt	Texas Cotton
Hog-Beef-Fattening--Corn Belt	Wheat
General Farming	Range Livestock
Coastal Plain Tobacco-Cotton	California Cotton

b) Description of Generalized Types of Farming

Dairy Farms

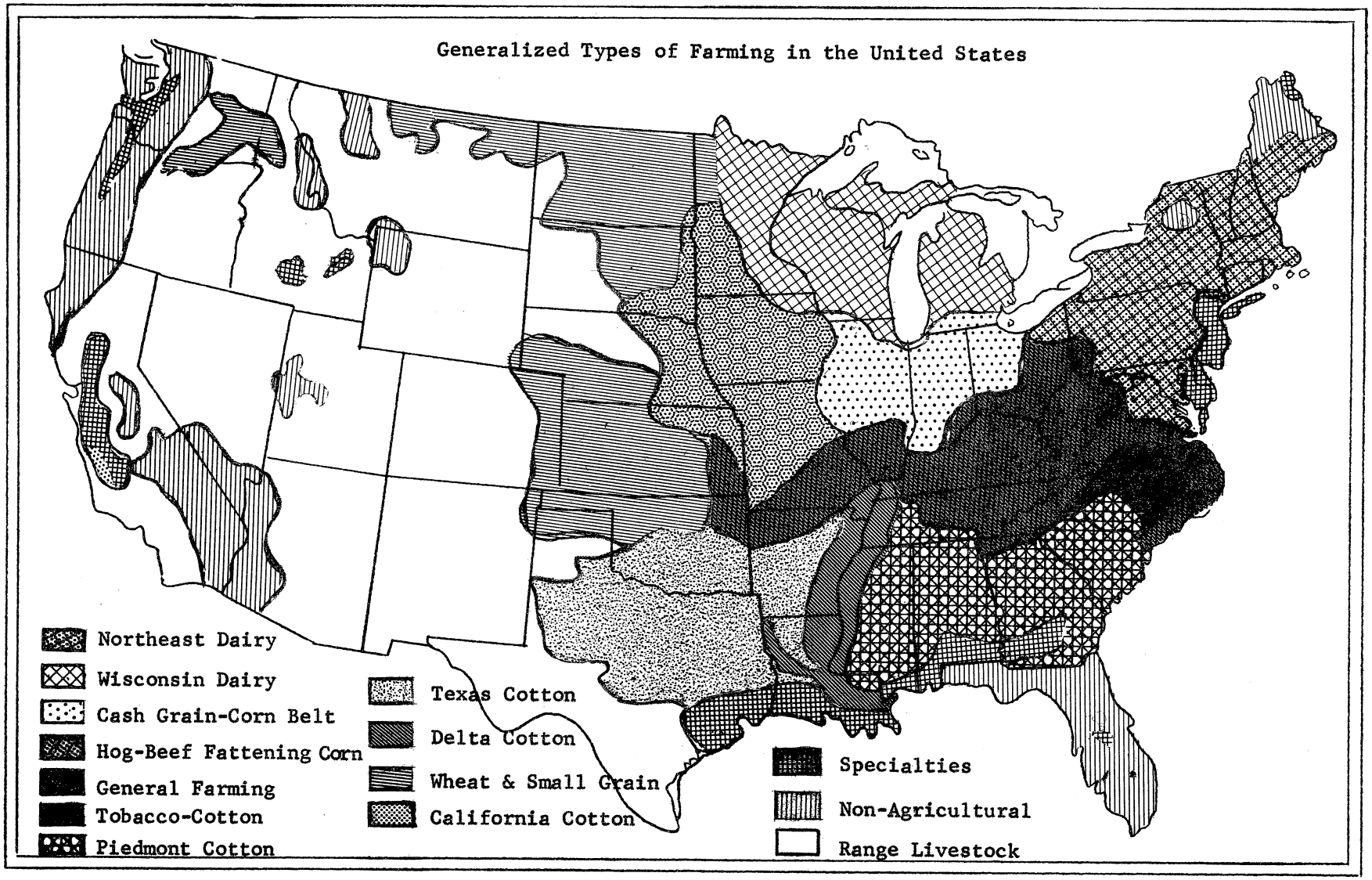
Dairy farms are found throughout the United States. Their importance relative to other farm enterprises is greatest in the northeastern and Great Lakes areas of the United States. The dairy farm operation is significantly different in these two major regions. Major differences in land area, land value, labor used and income required that they be handled separately.

Corn Belt Farms

Significant differences in the corn belt or feed grain producing states of the Midwest were found. Cash grain is the major source of income on the modal farm representing Illinois, Indiana, Ohio, and Michigan. Livestock is of secondary importance. In the western corn belt states, livestock is a major source of income. However, both types are found interspersed to a high degree in either area.

General Farms

The general farming belt extending from the wheat region centered in Kansas to the Atlantic Ocean separates the corn and dairy belts from the cotton belt. A mixture of crops and livestock (corn, wheat, oats, hay, soybeans, tobacco, fruit, truck crops, dairy, beef, swine, and poultry) are produced within this general farm area. The topography is generally broken and a considerable part of the total land


Generalized Types of Farming in the United States
Northeast Dairy
Wisconsin Dairy
Cash Grain-Corn Belt
Hog-Beef Fattening Corn
General Farming
Tobacco-Cotton
Piedmont Cotton
Texas Cotton
Delta Cotton
Wheat & Small Grain
California Cotton
Specialties
Non-Agricultural
Range Livestock

area must be kept in forage crops in order to maintain the soil. The modal farm includes a beef cattle livestock enterprise with the crop area being used for corn, oats, wheat, and hay production.

Tobacco Farms

A large area in Virginia and North Carolina is devoted to the production of tobacco. Farms in this area tend to be small in total acreage, cropland area, investment, and returns. Investment per acre is relatively high because of the building investment and high value land required for this intensive production activity.

Cotton Farms

No single farm is typical of the entire cotton belt extending from North Carolina to Texas. Three areas (piedmont, delta, and Texas) were delineated. Piedmont cotton farms are found in the eastern part of the area. Here cotton is produced in combination with corn and small grains. Farmers in the western and central part of the cotton belt have more investment and a higher level of mechanization than is found in this eastern area. Large specialized farms predominate in the Mississippi Delta and soybeans are of secondary importance to cotton as a source of income. The western part of this region is represented by non-irrigated farms in the High Plains Region of Texas. These farms tend to be smaller than the Delta cotton farms but larger than the Piedmont farms.

Wheat and Small Grain Farms

The wheat and small grain region was divided into four parts. The two southern parts have similarity but differ considerably from the northern and northwestern segments of the region. The wheat and small grain area of Kansas was selected as representative of the region.

Livestock Ranches

The range livestock region is the most extensive geographic area of any included for analysis. Many differences exist in ranch organization within the area. Population density is low and the agriculture extensive. A single feeder calf production activity typical of the southwest was selected to represent the entire area.

California Farms

California probably has the most diverse agriculture of any state in the United States. Fat cattle, feeder calves, dairy, poultry, cotton, citrus, vegetables, and fruits are all important sources of income. Irrigated cotton farms of the San Joaquin Valley were selected. These cotton farms are similar to several other types of California farms in that they represent an intensive agriculture with a relatively high total farm investment and considerable mechanization.

"Special" Farms

Scattered throughout the United States are important but relatively small areas characterized by specialized agricultural production. Examples are potatoes in northeastern Maine, truck farming on the Atlantic sandy coastal plain, peanuts in southern Georgia and Alabama, truck farming on the Gulf Coast, rice on the Gulf Coastal Prairies of Texas and Louisiana, potatoes in the Snake River area of Idaho, fruits and vegetables in the Sacramento and San Joaquin Valleys of California and in central Florida, and specialized dairy in Washington and Oregon. While these specialized areas are very important, they are small, geographically speaking, and were not considered in this study.

Non-Agricultural Areas

There are also several non-agricultural areas in the United States that were excluded. Examples are: Mohave Desert, Utah Salt Flats, mountain ranges, northern Maine woods, and Florida everglades.

3. Definition of Terms Used

(1) Cash Receipts--the amount of cash received from the farm business activity during a consecutive 12 month period from the sale of livestock, livestock products, crops, and payments for participation in government programs.

(2) Cash Expenditures--the total amount of cash paid out during a calendar year for goods and services (including taxes) used in production. Purchases of additional land an machinery are considered as capital outlays and were costed as current cash expenditures and include insurance to the extent now purchased.

(3) Value of Perquisites--includes the value of: crops, livestock, livestock products, and fuel consumed on the farm where produced, valued at current prices (prices at which they could have been sold), plus a nominal rental on farm dwelling.

(4) Change in Inventory--(a) crops, the physical quantity of feed and seed inventoried on December 31, minus the physical quantity inventoried on the preceding January 1, multiplied by the average annual sale price for each respective crop. (b) livestock, closing inventory minus beginning inventory, multiplied by the year-end value per head of the respective type and class of livestock. (c) machinery and buildings, current purchases of machinery and buildings, minus annual depreciation for all machinery and buildings used and inventoried in the farm business. If current purchases exceed annual depreciation, an increase in inventory results.

(5) Net Farm Income--the annual return to the farm family for labor and management services rendered during the year, plus a return on the total capital invested in the farm business. Net farm income equals "cash receipts" minus "cash expenditures" plus "value of farm perquisites" and "change in inventory of crops, livestock, machinery and buildings". Or:

$$NFI = CR-CE+P \pm IC$$

where:

NFI = Net Farm Income

CR = Cash Receipts

CE = Cash Expenses

P = Value of Perquisites

IC = Inventory Change of Crops, Livestock, Machinery, and Building

The net farm income is available to the farm operator for family living expenses, interest payment on borrowed money, debt retirement, expansion of the farm business, new investment, and savings.

All monetary values are expressed in terms of 1963 constant dollars.

4. Sources of Data

The major sources of data used in developing the modal farm situations are:

(1) Farm Costs and Returns Reports by the United States Department of Agriculture (USDA). These are annual reports and include factual data for important types of commercial farms by type, size, and location in the United States. Information for these reports was obtained from questionnaires distributed by rural carriers, mailed questionnaires sent to selected farmers and enumerative field surveys conducted by the USDA.

(2) The United States Census of Agriculture. The Census of Agriculture is a comprehensive survey of all farms in the United States. The census includes both the physical characteristics of the farm business and the socio-economic characteristics of the farm family. This census is taken every five years with 1959 being the most recent.

(3) Research Results and Related Data from State Agricultural Experiment Stations. Such data was used primarily as a check and provided more detailed specialized information than the USDA reports. Some types of farms are not included in the USDA reports. In these cases, the State Experiment Station publications were used as the primary sources of data.

5. Capacity to Purchase Insurance by the Farm Firm

Farming is a high risk business. Some hazards are of a frequency and uncertainty that it is unlikely that any satisfactory formal insurance protection can be economically feasible under present conditions. Even if formal insurance protection against all existing hazards was available, the premiums would be prohibitive. No "magic formula" based on empirical evidence is available, to the farmer or his insurance agent, for determining just how much of each type of insurance a farmer"should" purchase in order to satisfactorily protect himself, his family, and his business against each hazard.

We have grouped by priorities the insurable business hazards encountered by farm operators. Hazards included in the high priority group should be considered for formal protection before those in the medium priority group, and those in the medium priority before those in a low priority group.

The priorities are assigned to the different hazards in light of the following assumptions:

(1) Insurance is best used as a means of protection against losses that are too large, costly, or disastrous for the business to carry.

(2) It is less expensive for the farm operator to stand small business losses without formal insurance because in so doing he eliminates adjusting, appraising, and servicing costs.

(3) Purchase of deductible types of insurance provides essential coverage to the farm operator and eliminates the necessary additional service costs.

The farmer may well ask himself three basic questions before making an insurance purchase:

(1) What are the chances of encountering the hazard?

(2) What will happen to my business if the hazard is encountered?

(3) How much will it cost to buy insurance coverage against the hazard?

The amount of insurance that the farmer will be able to purchase in 1975 will depend on a number of factors. Major factors include income, equity position,and family living needs. Additionally and possibly more important will be his understanding and the availability of the types of insurance suited to his specific situation.

6. Insurance Priorities

Comprehensive Liability

A farmer today has more likelihood, than ever before, of involvement in lawsuit because of injury to or death of another person or damage to property resulting from negligence. Increased use of machinery and motor vehicles have influenced the incidence of accidents. Change in attitude toward farmer's liability responsibility has been affected by a high net worth position.

Judgments vary, depending upon the nature of the liability suit. For example, the farm operator could experience a judgment of $65,000. Such a judgment could require a large part of the equity capital and could force liquidation.

A suit and award for $10,000 judgment, on the other hand, probably would not force liquidation. However, some assets might have to be sold or debt increased to satisfy the judgment, seriously damaging the efficiency of the operation. Debt repayment and carrying costs would result in a lower living standard. Depending on the amount of the judgment, the period of reduced living standards could continue during a major part of the family's productive years. Transferring part of this liability risk to an external agent (insurance company) can often be accomplished for a reasonable cost.

Major Medical and Accident

Medical bills can be a critical cost to a farm business. Additionally, the inability of the farm operator or other key person to manage and conduct normal

responsibilities may be more critical than the financial strain caused by the medical bills. For example, a hospital and doctor bill of $3,000 would force a decreased standard of living, as this bill must be paid from the net farm income. If the bill was as high as $6,000 a severe financial strain could occur but the consequences would not be disastrous. However, in addition to the medical bills, the net farm income may be seriously decreased because of the manager's inability to function. The combination of a medical bill and inadequate management even for a relatively short time could be critical. Protection against hazards of inability to perform either from death or accident of key persons is of high value for satisfactory continued operation of a farm business.

Fire and Windstorm

The probability of any single fire causing the loss of a major part or all of the building investment is low. A two to four thousand dollar building loss would be damaging but not critical. In many farm situations the buildings would not need to be replaced. A severe windstorm could result in major building loss. Service building technology has advanced and replacement of utility can often be accomplished without creating a critical drain on the farm business. Considerable variation in the need for this protection exists among the generalized types of farming areas.

Term and Ordinary Life

Death of the farm operator will probably force liquidation of most farm business operations. The loss of the operator (key person) is sufficiently severe that a business is often unable to be continued. Not only does the need for replacing the operator's labor contribution become acute but the added cost of providing management must be met.

Crop

Crop losses are critical in that they may cause a severe decrease in the net farm income but have little affect on costs. Thus net farm income will be adversely

influenced. Family living, debt retirement, and business expansion would be curtailed by the crop loss.

Auto and Truck Collision

A total loss of automobile or truck utility would not pose a financial crisis for the farm business.

Hospitalization

This type of insurance is relatively expensive. Small medical bills are not prohibitive and can be handled as normal expenses. Loss of income and costs of hiring a substitute in order to continue business may be more important than the hospital bills as such.

Extended Property Coverage

This type of insurance is relatively inexpensive, however, losses covered would not be critical to the farm business in most instances.

Theft, Crops Stored Off the Farm and Workmen's Compensation

These insurance coverages are not included in this report. The incidence of theft to the farm business is an unknown. Theft does occur and can be damaging to the farm business. Many farm communities are alert to unusual events and provide informal protection. Many items are quite difficult to remove from the farm without detection.

Most crops stored off farms move into commercial channels. Elevators and livestock yards assume responsibility upon receipt and acceptance of these products. Consequently, a loss of such products after acceptance by such an agent would normally be recoverable.

Workmen's compensation is required in Ohio and a similar employer protection is manditory in most other states. Considerable variation probably exists in the coverages and requirements. This insurance protects the employer from injury or other employee claims arising from accident and/or negligence damages. This is a hazard which needs to be offset by formal insurance protection through either manditory or voluntary purchases.

7. Modal Type of Farm Projections and Insurable Hazards
(1) NORTHEAST DAIRY

	Average 1957-61[1/]	Projected 1975
Acres per farm	222	268
Crop acres harvested	82	99
Herd size (cows)	26	35
Pounds of milk per cow	7,950	9,500
Income		
Cash receipts	$10,836	$15,525
Cash expenses	-8,006	-11,900
Perquisites & inventory adj.	+1,514	+1,375
Net farm income	$ 4,344	$ 5,000

Projected Income Distribution in 1975

Family Living	$2,500	
Business Expansion	139	
Int. on borrowed capital	820	
Debt retirement	492	
Total Committed		$ 3,951
Uncommitted		$ 1,049

Investment		
Total Capital	$37,660	$54,640
Land	8,030	11,260
Buildings	12,050	16,880
Machinery & equipment	6,800	9,000
Livestock	8,260	14,500
Crops	2,520	3,000
Total Investment per Acre	$ 170	$ 204
Equity		
Assets	$37,660	$54,640
Liabilities	-11,300	-16,390
Net Worth	$26,360	$38,250
Percent equity	70	60

1/ The projections for 1975 are based on the 1947-61 trends. The 1957-61 averages are presented here as a basis of comparing the projected 1975 situation to the current situation.

Discussion of Projected Organization of Modal Northeast Dairy Farms

Farm Size

The modal farm size, measured in acres, is expected to increase through 1975 on a straight-line projection of the 1947-61 trend.

Income

Increased cash receipts will result from larger livestock and livestock product sales. With the continued trend to larger herds and higher producing cows, cash receipts will increase sufficiently to earn a $5,000 net farm income.

Cash expenditures will continue to increase following the 1947-61 trend. Machinery expenses and feed purchases will account for an increasing percentage of the cash expenses as the farm becomes more intensified and mechanized (see Figure 2).

Investment

With the increase in farm size and continued increase in land values, the total farm real estate investment will be proportionally greater. Improved quality and thus more expensive cows will be required to achieve the projected milk production. An absolute increase in the herd size will also contribute to the increase in livestock investment.

Equity

The current equity ratio of the modal northeastern dairy farmer is 70 percent. Expansion will require the use of more borrowed capital, as this type of farm lacks the generative ability above family needs. The equity ratio is expected to decrease to 60 percent by 1975.

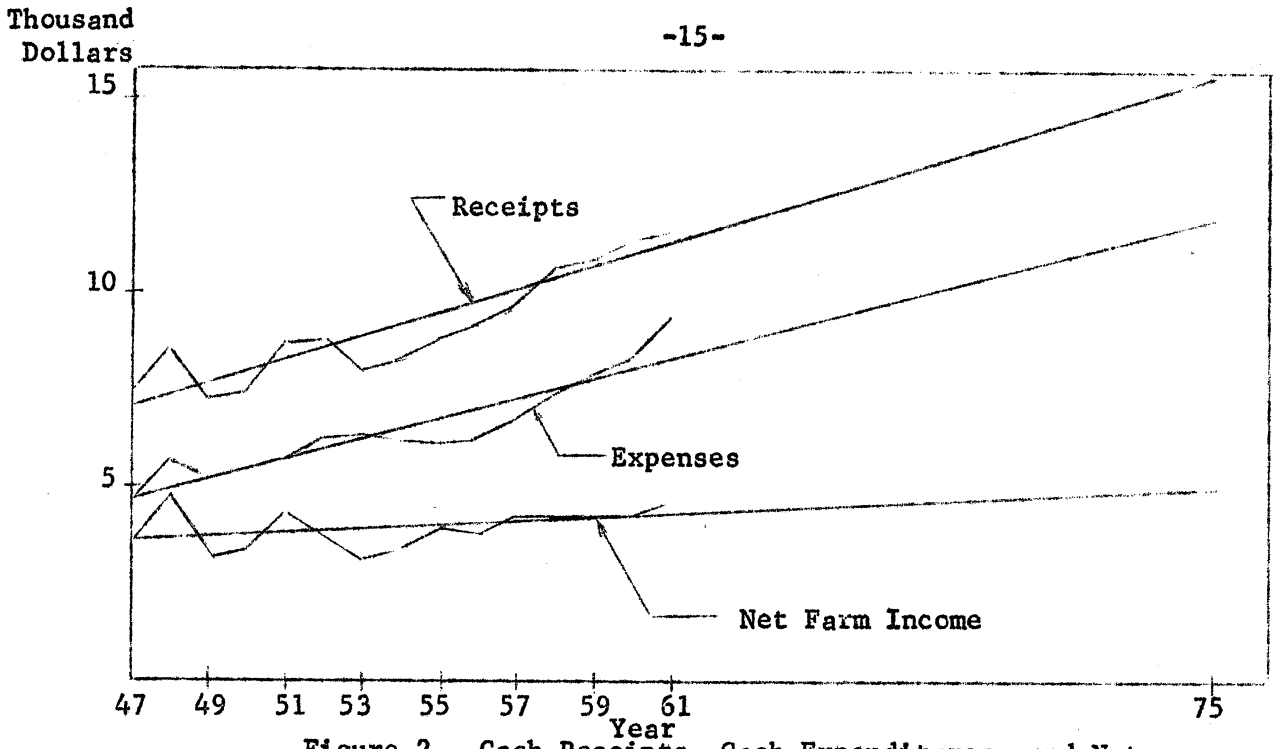


Figure 2. Cash Receipts, Cash Expenditures, and Net Farm Income, Modal Northeastern Dairy Farm, 1947-61 and Projected to 1975

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person and property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily injury liability
(2) Fire and windstorm losses of buildings and contents (including livestock)	Fire and windstorm
(3) Large medical bills and inability of a key person to function normally	Major medical and accident

Comprehensive Personal Liability

Liability protection is important to dairy farm operators. Typically, the equivalent of a half-time hired man is employed. Frequently, this hired labor is working around high-speed equipment. Farm employer's liability insurance is consequently more important than on farms with less hired labor.

Fire and Windstorm

Buildings account for nearly a third of the total farm investment or half of

the operator's equity. Additionally, buildings are vital to the operation of the farm. Loss of the dairy barn would critically influence earning power and financial stability.

Major Medical and Accident

With the use and availability of hired labor, incapacitation of the operator for a short period of time would not be disastrous. Extended losses of operator time, particularly of a managerial nature could be critical.

MEDIUM PRIORITY

(4) Death of operator or key person	Term and Ordinary Life

Term and Ordinary Life

The dairy farm operator often considers his equity as an insurance coverage. The death of a key person would force liquidation.

LOW PRIORITY

(5) Property damage caused by explosions, vehicles, riots, smoke,etc.	Extended property coverage
(6) Damage to auto or truck	Auto and truck collision
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Loss of crops in field due to weather	Crop

Extended Property Coverage

On dairy farms, a relatively high percentage of the total investment is in buildings. Damage, covered by this type of insurance, is more likely on dairy farms than on farms with relatively lower building investments.

Auto and Truck Collision and Hospitalization

Loss of a serviceable auto or truck and regular hospitalization coverage is of relatively minor importance.

Crop

Acreages in crops that might be insured (corn and oats) are limited and a partial crop loss would not be critical. Some feed is normally purchased. Additional purchases necessitated by crop loss would increase costs but usually can be handled without extreme difficulty.

(2) WISCONSIN DAIRY

	Average 1957-61[1/]	Projected 1975
Acres per farm	142	170
Crop acres harvested	83	99
Herd size (cows)	20	27
Pounds of milk per cow	8,513	10,000
Income		
Cash receipts	$ 8,093	$11,825
Cash expenses	-6,696	-9,200
Perquisites & inventory adj.	+1,487	+1,375
Net Farm income	$ 2,884	$ 4,000

Projected Income Distribution in 1975

Family Living	$2,500	
Business expansion	405	
Int. on borrowed capital	603	
Debt retirement	240	
Total committed		$ 3,748
Uncommitted		$ 252

Investment		
Total capital	$41,538	$60,250
Land	10,233	15,300
Buildings	15,350	22,950
Machinery & equipment	7,030	9,500
Livestock	6,200	9,500
Crops	2,725	3,000
Total investment per acre	$ 293	$ 354
Equity		
Assets	$41,538	$60,250
Liabilities	6,230	12,050
Net worth	$35,308	$48,200
Percent equity	85	80

1/ The projections for 1975 are based on the 1947-60 trends. The 1957-60 averages are presented here as a basis of comparing the projected 1975 situation to the current situation.

Discussion of Projected Organization of Modal Wisconsin Dairy Farms

Farm Size

Modal farm size increased from 124 acres in 1947 to 146 acres in 1960, or approximately 18 percent during the 14-year period. The modal farm size is expected to increase to 170 acres by 1975.

Income

Cash receipts are projected to increase 59 percent above the 1947-60 average. Cattle and calves, hogs, and dairy product sales will increase while poultry and egg sales will decrease. Cash receipts per acre will increase 24 percent($54 to $67). An expanded farm business and use of more non-farm inputs will result in increased cash expenditures. A modest increase in farm income is projected.

Investment

Increasing farm size, land values, mechanization, size of dairy herd, and quality of milk cows will be the major factors contributing to the increases in total farm investment.

Equity

This relatively small decrease in equity (from 85 to 80 percent) is due to the modal farmer's ability to expand the business from generated capital.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person and property damage with the farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage and bodily injury liability
(2) Fire and windstorm losses of buildings and contents (including livestock)	Fire and windstorm
(3) Medical bills and inability of a key person to function normally	Major medical and accident

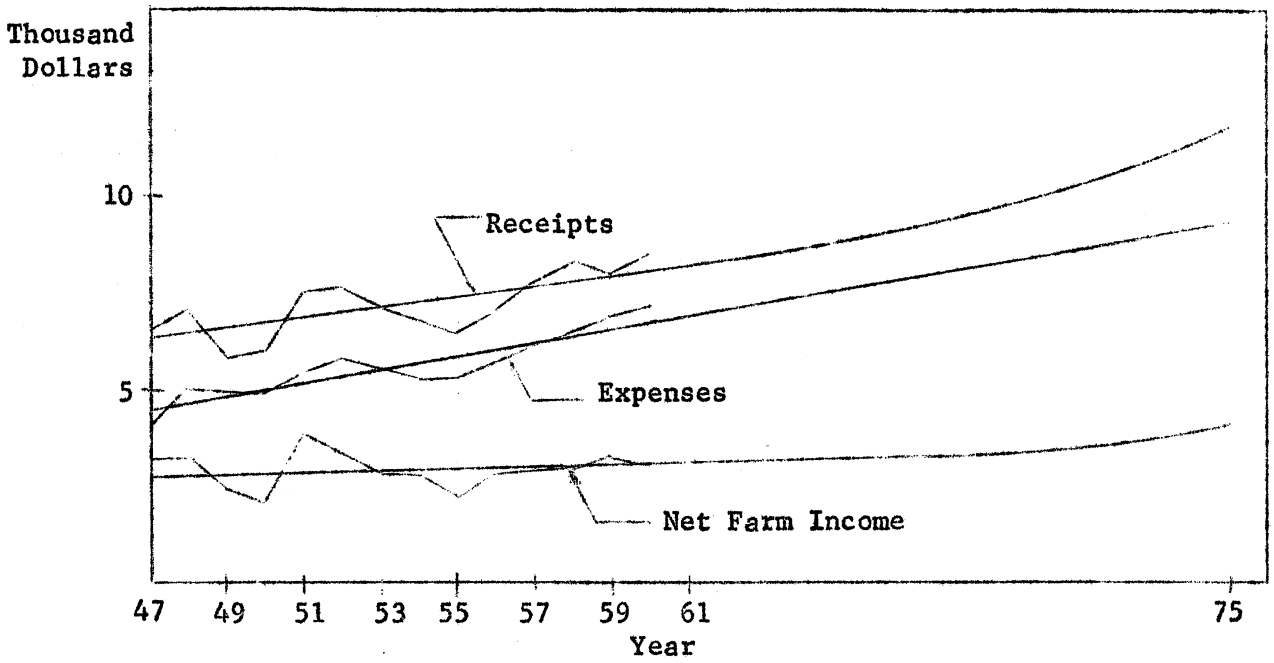


Figure 3. Cash Receipts, Cash Expenditures, and Net Farm Income, Eastern Wisconsin Grade B Dairy

Comprehensive Liability

Liability insurance has been discussed previously.

Fire and Windstorm

Buildings account for more than a third of the total farm investment and nearly half of the equity. Additionally, they are vital to the operation of the farm. Loss of the dairy barn, auxiliary equipment, and/or cows would be critical.

Major Medical and Accident

Major medical and accident insurance is relatively more important to the Wisconsin dairy farmer than the northeast dairy farmer. Less labor is hired, therefore, hiring temporary labor to replace an incapacitated operator is more difficult. The combination of medical bills and the manager's inability to function can be critical.

MEDIUM AND LOW PRIORITY

(4) Death of operator or key person	Term and ordinary life
(5) Property damage caused by explosions, riots, vehicles, smoke, etc.	Extended property coverage
(6) Damage to auto or truck	Auto and truck collision
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Loss of crops in field due to weather	Crop

NOTE: The discussion for the northeast dairy farm is appropriate for the Wisconsin dairy farm.

(3) CASH GRAIN FARM--CORN BELT

	Average 1957-61[1/]	Projected 1975
Acres per farm	253	292
Crop acres harvested	197	220
Income		
Cash receipts	$14,402	$19,560
Cash expenses	-7,843	-11,800
Perquisites & inventory adj.	+ 775	+ 740
Net farm income	$ 7,334	$ 8,500

Projected Income Distribution in 1975

Family living	$3,000	
Business Expansion	131	
Int. on borrowed capital	2,183	
Debt retirement	1,310	
Total committed		$ 6,624
Uncommitted		$ 1,876

Investment		
Total capital	$103,176	$145,500
Land	73,021	105,120
Buildings	18,255	26,280
Machinery & equipment	7,266	9,500
Livestock	2,906	3,000
Crops	1,728	1,600
Total investment per acre	$ 408	$ 498
Equity		
Assets	$103,176	$145,500
Liabilities	-25,794	-43,650
Net worth	$ 77,382	$101,850
Percent equity [2/]	75	60

1/ The projections for 1975 are based on the 1947-61 trends. The 1957-61 averages are presented here as a basis of comparing the projected 1975 situation with the current situation.

2/ Although the modal farm is projected as having 60% equity, there will likely be a great deal of variation in equity. Some farms will probably be operated with as little as 30% equity. Some farm operators will have 100% equity.

TABLE OF CONTENTS

Discussion of Projected Organization of Modal Cash Grain Farm--Corn Belt

Farm Size

Farm size increased steadily during the 1947-61 period. With this trend continuing to 1975, the modal farm will increase to 292 acres, 15 percent larger than in 1961. Corn and soybeans will become relatively more important. Small grains (oats and wheat) will decline in importance. The importance of livestock is not expected to increase significantly.

Income

Cash expenditures are projected to increase at a decreasing rate. This increased cost will result from technological adaptations and increased operating expenses. Net farm income is expected to level off at $8,500 annually.

With increasing expenditures, cash receipts must increase accordingly if farm income is to be maintained (see Figure 4).

Investment

Total farm investment increased rapidly during the 1947-61 period. Further increases in farm investment are expected. The rate of increase, however, will be considerably less than during the 1947-61 period due to a "leveling off" of land prices. The increasing investment in machinery and equipment is expected to continue. Little change was projected in livestock investment.

Equity

Information of farm operator equity position by types of farm operation was not available. We assumed an equity of 75 percent for the 1947-1961 period. The total dollar equity is expected to increase at a slower rate than corresponding increases in investment. Borrowed capital will be required for expansion and the operator's equity will decrease to 60 percent of the total.

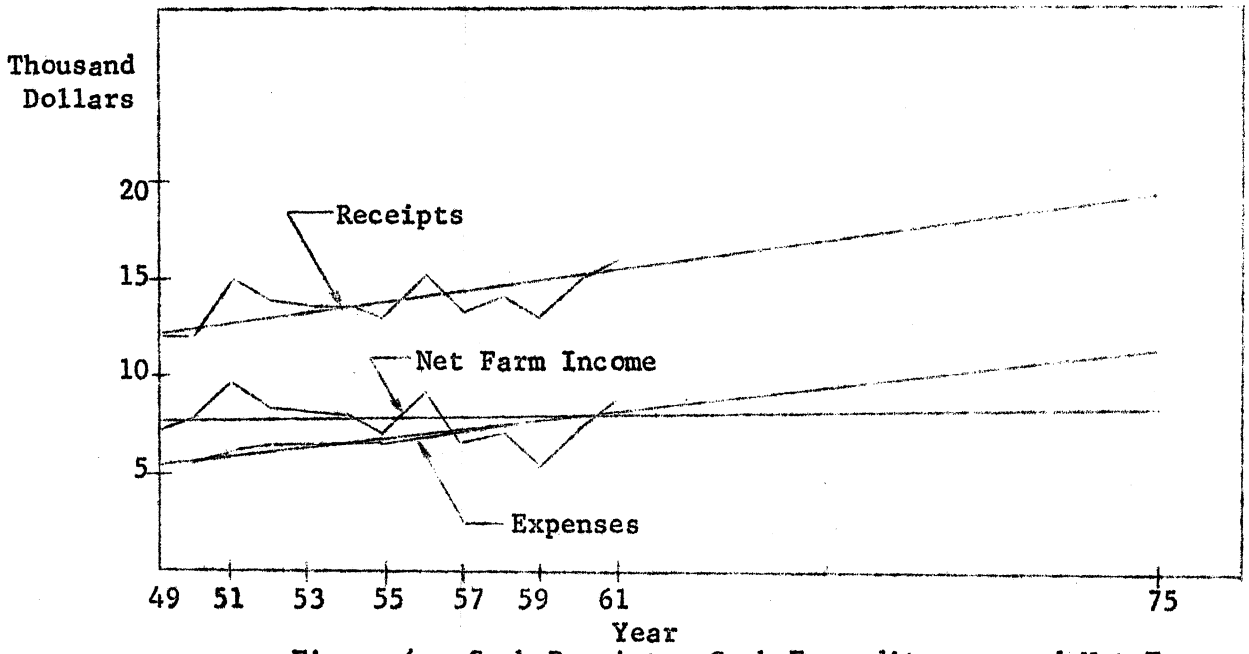


Figure 4. Cash Receipts, Cash Expenditures, and Net Farm Income, Modal Cash Grain Farm--Corn Belt, 1947-61, and Projected to 1975

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person and property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily damage liability
(2) Large medical bills and inability of a key person to function normally	Major medical and accident

Comprehensive Liability

Liability protection is very important to an operator of this type organization. Labor is hired and the services of several agents are used. In addition, such an organization has a sizeable investment.

Major Medical and Accident

Inability of a key person to function in a managerial role can be of serious consequence. The drain of added labor and managerial expenditures for medical care along with the loss of this service requires protection.

MEDIUM PRIORITY

(3) Loss of buildings and contents including stored grain through fire or windstorm	Fire and windstorm (assuming coverage includes contents)
(4) Death of operator	Term and ordinary life
(5) Loss of crops in field due to hail	Crop

Fire and Windstorm

Loss of any one building would be damaging but not disastrous to the farm business. Damage or loss to stored crops may be of greater concern than loss of structure.

Term and Ordinary Life

Death of an operator would force liquidation or complete business reorganization of most farms of this type. Life insurance can assist the family in making an adjustment.

Crop

Coverable crop loss varies from year to year and from one locality to another. Any crop loss can severely reduce farm income. For example, on the modal farm:

Normal crop value	$17,142
25 percent crop loss	4,286
Realized crop income	$12,856

All of the fixed or overhead and most of the variable costs would continue. Thus,

Normal farm income	$8,500
Crop loss	-4,286
Adjusted farm income	$4,214

Family living, ability to meet debt obligations, and the possibility of expansion are curtailed.

LOW PRIORITY

(6) Damage to auto or truck	Auto and truck collision
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Property damage caused by explosions, riots, vehicles, smoke, etc.	Extended Property coverage

Auto and Truck Collision

The loss of an automobile or truck which was needed for the farm business would not be a serious loss.

Hospitalization

Regular hospitalization insurance coverages would be convenient, but of low priority

Extended Property Coverage

Most losses would not be critical.

(4) HOG-BEEF FARM, CORN BELT

	Average 1957-61	Projected 1975
Acres per farm	213	250
Crop acres harvested	149	175
Income		
Cash Receipts	$21,821	$19,971
Cash Expenses	-15,707	-12,787
Perquisites & inventory adj.	+ 1,536	+ 1,500
Net farm income	$ 7,650	$ 8,684

Projected Income Distribution in 1975

Family living	$3,500	
Business expansion	231	
Int. on borrowed capital	1,450	
Debt retirement	870	
Total committed		$ 6,051
Uncommitted		$ 2,633

Investment		
Total capital	$79,564	$116,000
Land	37,700	57,000
Buildings	16,156	24,500
Machinery & equipment	7,674	12,000
Livestock	11,802	15,500
Crops and supplies	6,232	7,000
Total investment per acre	$ 374	$ 464
Equity		
Assets	$79,564	$116,000
Liabilities	15,913	29,000
Net worth	$63,651	$ 87,000
Percent equity	80	75

Discussion of Projected Organization of Modal Hog-Beef Farm, Corn Belt, Projected to 1975

Farm Size

The projected 1975 farm size is based on continuation of the 1947-61 trend.

Income

The primary source of cash receipts is from the livestock. It was assumed that a net farm income approximating the one projected will be essential to keep the resource complex required in agriculture.

Investment

Total farm capital is expected to continue to increase, but at a decreasing rate. Increasing land values and farm size will be the major factors in the increased investment. Land values are expected to begin to "level off" by 1975. The increasing investment in machinery and equipment will continue.

Equity

Based on the best information available, an equity of 75 percent was assumed.

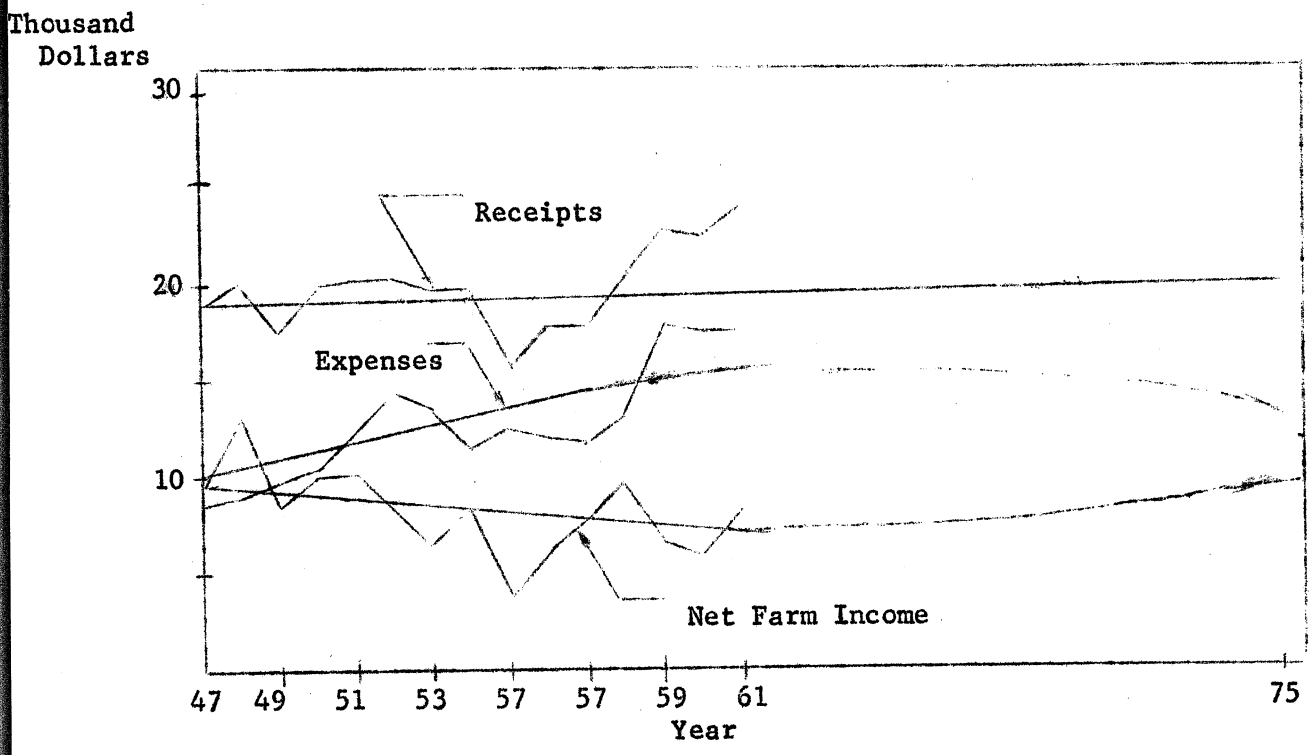


Figure 5. Cash Receipts, Cash Expenditures, and Net Farm Income, Hog-Beef Farms--Corn Belt

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person and property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability auto property damage & bodily injury liability
(2) Loss of buildings and contents including stored grain through fire or windstorm	Fire and windstorm (assuming coverage includes contents)
(3) Large medical bills and inability of key person to function normally	Major medical and accident

Comprehensive Personal Liability, Major Medical and Accident, & Fire and Windstorm

Previous discussion is appropriate here.

MEDIUM PRIORITY	
(4) Death of Operator	Term and Ordinary Life
(5) Loss of crops in field	Crop insurance

Term and Ordinary Life, Crop

Previous discussion is appropriate here.

LOW PRIORITY	
(6) Property damage, caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage
(7) Damage to auto or truck	Auto and truck collision
(8) Hospital, surgical, and doctor bills	Hospitalization

Extended Property Coverage, Auto and Truck Collision, & Hospitalization

None of these types of insurance is essential.

(5) GENERAL FARM

	Projected 1975
Acres per farm	260
Crop acres harvested	90
Income	
Cash receipts	$ 6,500
Cash expenses	-4,000
Perquisites & inventory adj.	+1,000
Net farm income	$ 3,500

Projected Income Distribution in 1975

Family living	$3,000	
Business expansion	125	
Int. on borrowed capital	190	
Debt retirement	125	
Total committed		$3,440
Uncommitted		$ 60

Investment	
Total capital	$38,000
Land	19,950
Buildings	8,550
Machinery & equipment	4,500
Livestock	4,000
Crops and supplies	1,000
Total investment per acre	$ 146
Equity	
Assets	$38,000
Liabilities	3,800
Net worth	$34,200
Percent equity	90

NOTE: Most of this data came from Agriculture Census and:

(1) Profitable Adjustments of Farms in Eastern Ozarks of Missouri, Ronald Bird, and Frank Melter, Research Bulletin 745, Missouri Agricultural Experiment Station.

(2) Employment, Income, and Resources of Rural Families of Southeastern Ohio, Donald Steward, Research Bulletin 886, Ohio Agricultural Experiment Station.

(3) A General Picture of Commercial Agriculture in Eastern Kentucky, H. R. Jensen and Luther Keller, Progress Report 60, Department of Agricultural Economics, University of Kentucky.

Discussion of Projected Organization of Modal General Farm

The projections for the modal general farm are based on empirical data reported in several state experiment station studies. These data were not available on a yearly basis. Consequently, there was no basis for developing trends.

Farm Size

Farm size will continue to increase. These farms have considerable acreage in permanent pasture and wasteland. The small percent of cropland relative to total land area will be reflected in a modest increase in income.

Investment

Land and buildings constitute a high percent of total investment. Buildings are designed for general use. A loss other than the dwelling would not be critical.

Equity

The equity ratio is relatively high because of limited use of borrowed capital for business expansion. Increased borrowing will lower the equity ratio some.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily injury liability

Comprehensive Personal Liability

Very little, if any, hired labor is used. Consequently, employer's liability insurance is not an essential part of the liability insurance program.

MEDIUM PRIORITY	
(2) Large medical bills and inability of key person to function normally	Major medical and accident
(3) Loss of buildings and contents including stored grain through fire and windstorm	Fire and windstorm (assuming coverage includes contents)

Major Medical and Accident

With no hired labor loss of manager's time is critical. This loss would be offset by neighbors and family labor.

Fire and Windstorm

Other than the house, loss of any of the buildings would not be critical.

LOW PRIORITY

(4) Death of Operator	Term and Ordinary Life
(5) Property damage caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage
(6) Hospital, surgical, and doctor bills	Hospitalization
(7) Damage to auto or truck	Auto and Truck Collision
(8) Loss of crops in field due to hail	Crop insurance

Term and Ordinary Life

Due to the very high equity, life insurance is not essential.

Extended Property Coverage

This coverage is not essential although it is relatively more important than hospitalization, collision, or crop insurance.

Hospitalization

The bills that would be offset by this type of insurance would not be disastrous to the business operation. This protection is expensive relative to income.

Auto and Truck Collision

The automobile and truck, if owned, would have modest value. Loss of the vehicles would not be critical to the farm business.

Crop

Acreage in crops that might be insured is relatively limited. A partial crop loss might not be critical.

(6) COASTAL PLAIN TOBACCO-COTTON

	Average 1957-61	Projected 1975
Acres per farm	85	100
Crop acres harvested	31	36
Income		
Cash receipts	$ 5,732	$ 7,300
Cash expenses	-3,671	-4,750
Perquisites & inventory adj.	+ 603	+ 650
Net farm income	$ 2,664	$ 3,200

Projected Income Distribution in 1975

Family living	$2,500	
Business expansion	132	
Int. on borrowed capital	280	
Debt retirement	168	
Total committed		$ 3,080
Uncommitted		$ 120

Investment		
Total capital	$20,769	$27,950
Land	12,737	17,250
Buildings	4,246	5,750
Machinery & equipment	2,627	3,500
Livestock	549	675
Crops	610	775
Total investment per acre	$ 244	$ 280
Equity		
Assets	$20,769	$27,950
Liabilities	3,115	5,590
Net worth	$17,654	$22,360
Percent equity	85	80

Discussion of Projected Organization of Modal Coastal Plain Tobacco-Cotton Farm

Farm Size

The U.S.D.A. costs and returns data for coastal plain tobacco-cotton farms does not reflect changing farm size. The data were modified and supplemented with agriculture census data to establish farm size for this projection.

Income

Cash receipts on these farms fluctuate, depending on yield of the tobacco crop. Approximately 75 percent of the cash receipts were from tobacco. Net farm income will increase with the increase in farm size, higher yields, and more efficient operation.

Investment

Increase in cash investment is due to increased farm size, and more machinery. There will be an increase in projected value of assets due to increased land value and increase in livestock kept. Land and buildings will continue to constitute approximately 80 percent of the total investment.

Equity

A high equity position is projected. Borrowed funds are used primarily for current operating expenses. The equity position of the modal farm is based on empirical data from similar areas.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily injury liability
(2) Loss of buildings and contents including stored grain through fire or windstorm	Fire and windstorm (assuming coverage includes contents)
(3) Large medical bills and inability of key person to function normally	Major medical and accident

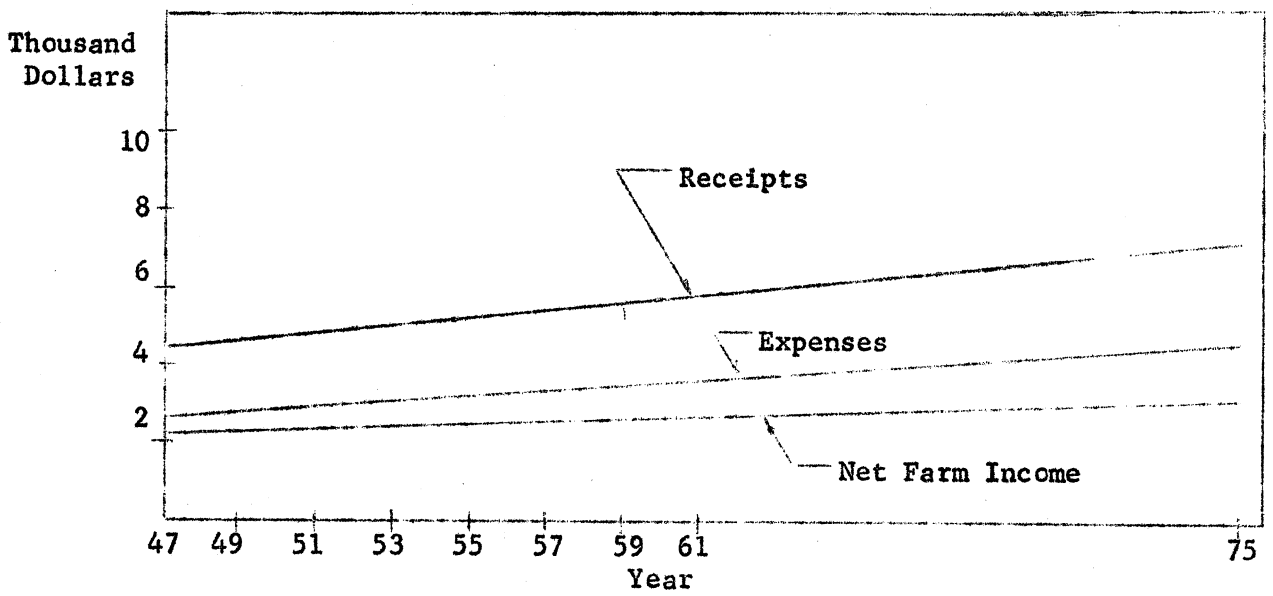


Figure 6. Cash Receipts, Cash Expenditures, and Net Farm Income, Tobacco-Cotton Farms, Coastal Plain, North Carolina

Comprehensive Personal Liability

Considerable hired and cropper labor is used. Employer's liability insurance is essential. Previous discussion is appropriate.

Fire and Windstorm

Tobacco, the major source of income, is stored on the farm in wooden barns. Loss of the stored tobacco would be critical.

Major Medical and Accident

High medical bills and the loss of the manager's services are critical.

MEDIUM PRIORITY

(4) Loss of crops in field due to hail	Crop Insurance
(5) Death of operator	Term and Ordinary Life

Crop

Loss of a tobacco crop in the field would decrease the net farm income severely.

Term and Ordinary Life

With the relatively high equity, life insurance is not essential. With low equity life coverage is important.

LOW PRIORITY

(6) Property damage caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Damage to auto or truck	Auto and truck collision

Extended Property Coverage, Hospitalization, and Auto and Truck Collision

Discussion under general farm is appropriate here.

(7) COTTON FARM--SOUTH PIEDMONT

	Average 1957-61	Projected 1975
Acres per farm	209	257
Crop acres harvested	65	79
Income		
Cash receipts	$ 4,804	$ 7,575
Cash expenses	-3,288	-5,050
Perquisites & inventory adj.	+ 713	+ 725
Net farm income	$ 2,229	$ 3,250

Projected Income Distribution in 1975

Family living	$2,500	
Business expansion	268	
Int. on borrowed capital	265	
Debt retirement	159	
Total committed		$ 3,192
Uncommitted		$ 58

Investment		
Total capital	$22,558	$35,315
Land	14,400	23,130
Buildings	4,800	7,710
Machinery & equipment	1,960	3,000
Livestock	928	975
Crops	470	500
Total investment per acre	$ 108	$ 137
Equity		
Assets	$22,558	$35,315
Liabilities	2,256	5,300
Net worth	$20,302	$30,015
Percent equity	90	85

Discussion of Projected Organization of Modal Cotton Farm Southern Piedmont

Farm Size

The projected 1975 farm size is based on a continuation of the 1947-61 trend. The acreage of cotton is expected to increase on the modal farm but decrease as a percentage of the total cropland harvested. Small grain acreage will increase absolutely and as a percentage of the cropland harvested.

Income

Cotton accounts for approximately 55 percent of the cash receipts. Livestock is of minor importance. Cash receipts are expected to increase at a faster rate than cash expenditures. Net farm income, as a result, will increase approximately 11 percent more than would be expected from the 1947-61 trend. The increase in cash receipts is expected, due to increased farm size, higher yields and efficiency.

Investment

The increase in total farm capital is expected to continue but at decreasing rates. Increasing land values and farm size will be the major factors responsible for the increased investment. Land values are expected to begin "leveling off" by 1975. Machinery and equipment is expected to increase gradually. Livestock investment will change relatively little.

Equity

Equity will remain relatively high.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily injury liability
(2) Large medical bills and inability of key person to function normally	Major medical and accident

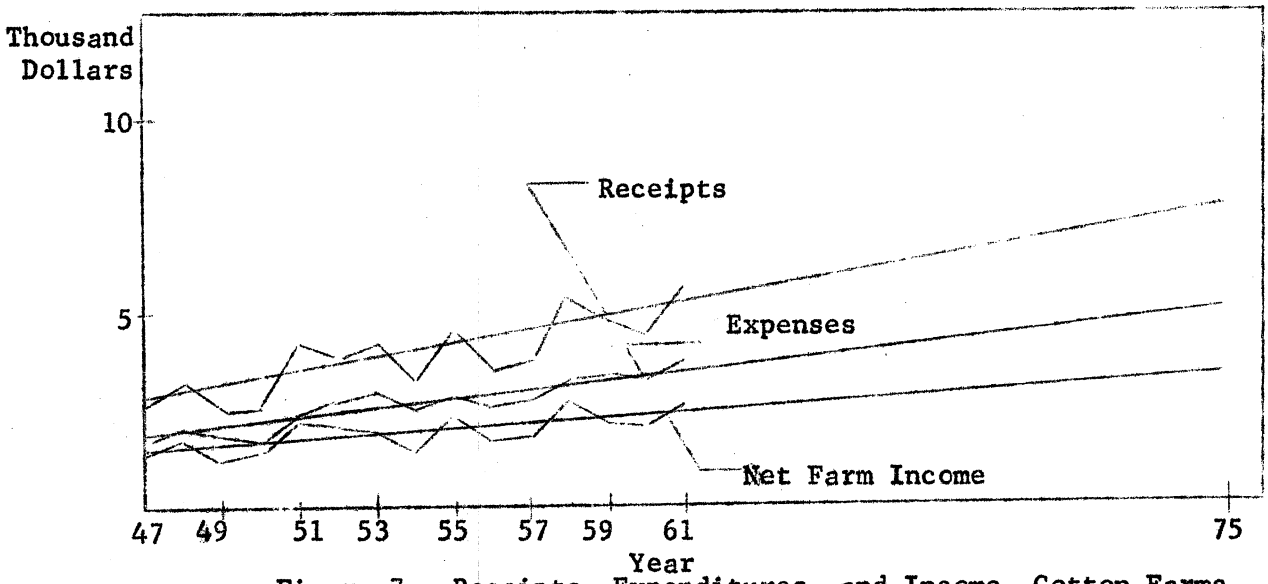


Figure 7. Receipts, Expenditures, and Income, Cotton Farms, Southern Piedmont

Comprehensive Personal Liability

Considerable hired and cropper labor is used, thus, the employer's liability insurance is essential. Previous discussion and reasoning concerning public liability insurance is appropriate.

Major Medical and Accident

High medical bills are critical. The key role of the operator and the consequences of a sizeable hospital expense could force liquidation.

MEDIUM PRIORITY

(3) Loss of buildings and contents, including stored grain through fire or windstorm	Fire and windstorm, (assuming coverage included contents)
(4) Loss of crops in field due to hail	Crop insurance
(5) Death of Operator	Term and Ordinary Life

Fire and Windstorm

It is extremely unlikely that any single fire or windstorm would result in the loss of all the building investment. Loss of some buildings would not be critical and in some cases would not need to be replaced. The dwelling would be an exception.

Crop

Loss of a cotton, corn, or small grain crop would cause a decrease in standard of living and impose a financial hardship to the business.

Term and Ordinary Life

With the relatively high equity, life insurance is not essential. With low equity life coverage is important.

LOW PRIORITY

(6) Property damage, caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Damage to auto or truck	Auto and truck collision

Extended Property Coverage

This coverage is not essential, but relatively more important than hospitalization or collision insurance.

Hospitalization and Auto and Truck Collision

Discussion under general farm is appropriate here.

(8) DELTA COTTON

	Average 1957-61	Projected 1975
Acres per farm	58	68
Crop acres harvested	35	41
Income		
Cash receipts	$ 3,666	$ 5,580
Cash expenses	-2,341	-3,950
Perquisites & inventory adj.	+ 421	+ 420
Net Farm income	$ 1,746	$ 2,050

Projected Income Distribution in 1975

Family living	$1,700	
Business expansion	96	
Int. on borrowed capital	135	
Debt retirement	54	
Total committed		$ 1,985
Uncommitted		$ 65

Investment		
Total capital	$13,212	$18,000
Land	7,154	10,200
Buildings	2,384	3,400
Machinery & equipment	2,982	3,700
Livestock	492	500
Crops & supplies	200	200
Total investment per acre	$ 228	$ 265
Equity		
Assets	$13,212	$18,000
Liabilities	1,322	2,700
Net Worth	$11,890	$15,300
Percent equity	90	85

Discussion of Projected Organization of Modal Delta Cotton Farm, Projected to 1975

Farm Size

The projected 1975 farm size is based on a continuation of the 1947-61 trend. Cotton will decrease slightly and soybeans will increase in importance.

Income

Approximately 75 percent of the cash receipts are normally from cotton. Livestock is a minor part of the farm operation. A modest increase in net farm income was projected. The expected increase in cash receipts is due to increased farm size, higher yields, and more efficient operation.

Investment

The increase in total farm capital is expected to continue, but at a decreasing rate. Increasing land values and farm size will be the major factors. Land values are expected to begin to "level off" by 1975. The increasing investment in machinery and equipment is expected to continue. Livestock investment will change relatively little, and will remain a minor part of the operation.

Equity

Equity is projected to remain relatively high.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily injury liability
(2) Large medical bills and inability of a key person to function normally	Major medical and accident

Comprehensive Personal Liability

Considerable hired and cropper labor is used. Employer's liability insurance protection is essential.

Major Medical and Accident

High medical bills are critical.

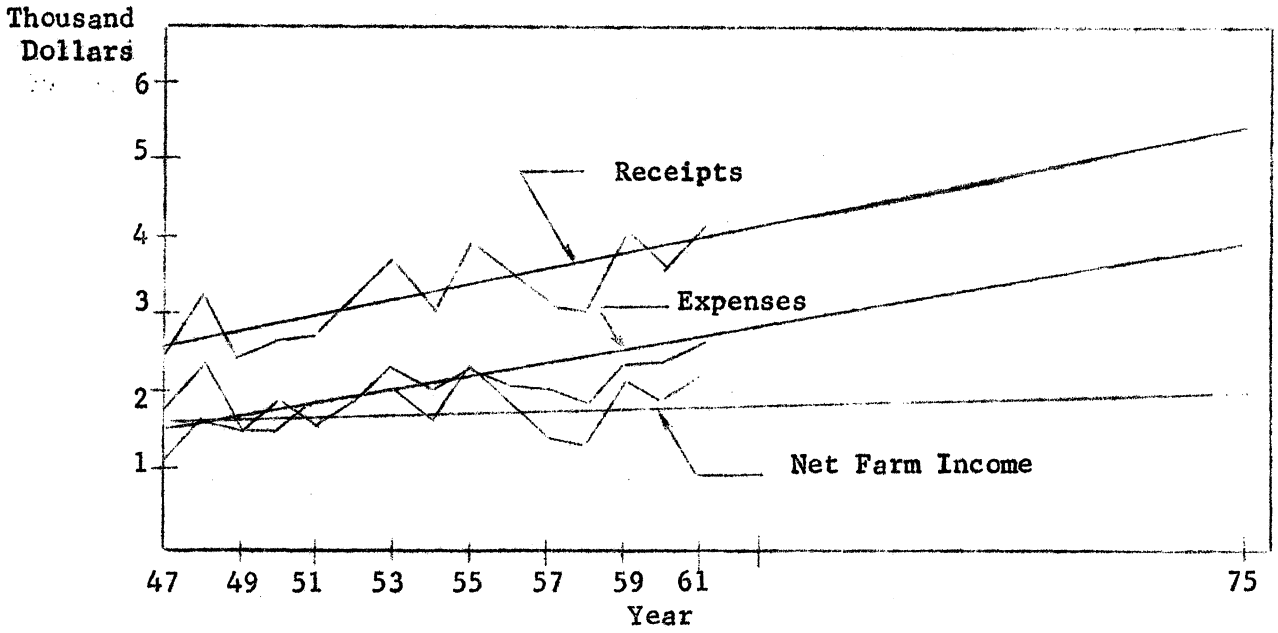


Figure 8. Receipts, Expenditures, and Income, Delta Cotton Farms (Small)

MEDIUM PRIORITY

(3) Loss of buildings and contents including stored grain through fire or windstorm	Fire and windstorm (assuming coverage includes contents)
(4) Loss of crops in field due to hail	Crop
(5) Death of Operator	Term and Ordinary Life

Fire and Windstorm

It is extremely unlikely that any single fire or windstorm would result in the loss of a major part of the building investment. In some cases (except for the dwelling) lost buildings would not need to be replaced.

Crop

Loss of a cotton, corn, or soybean crop would cause a decrease in standard of living.

Term and Ordinary Life

With the relatively high equity, life insurance is not essential.

LOW PRIORITY

(6) Property damage caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Damage to auto or truck	Auto and Truck Collision

Extended Property Coverage

Not essential,but relatively more important than hospitalization or collision insurance.

Hospitalization and Auto and Truck Collision

Discussion under General Farm is appropriate here.

(9) NON-IRRIGATED COTTON FARMS, HIGH PLAINS, TEXAS

	Average 1957-61	Projected 1975
Acres per farm	414	567
Crop acres harvested	303	414
Income		
Cash receipts	$12,518	$13,275
Cash expenses	-5,995	-6,600
Perquisites & inventory adj.	+ 623	+ 625
Net farm income	$ 7,146	$ 7,300

Projected Income Distribution in 1975

Family living	$3,500	
Business expansion	750	
Int. on borrowed capital	1,255	
Debt retirement	755	
Total committed		$ 6,260
Uncommitted		$ 1,040

Investment		
Total capital	$56,078	$83,660
Land	35,900	55,280
Buildings	11,966	18,430
Machinery & equipment	7,284	9,000
Livestock	610	625
Crops	318	325
Total investment per acre	$ 135	$ 148
Equity		
Assets	$56,078	$83,660
Liabilities	14,020	25,100
Net worth	$42,058	$58,560
Percent equity	75	65

Discussion of Projected Organization of Modal Non-irrigated Cotton Farms, High Plains, Texas, Projected to 1975

Farm Size

The projected 1975 farm size is based on an assumed continuation of the 1947-61 trend. Cotton will decrease slightly in relative importance; grain sorghum will increase in importance on those farms.

Income

Approximately 70 percent of the cash receipts are normally from cotton. Livestock is a minor part of the farm operation. A steady increase in cash receipts is projected. Based on the increased cash receipts being offset by increased cash expenditures, a very modest increase in net farm income was projected.

Investment

The increase in total farm capital is expected to continue, but at a decreasing rate. Increasing land values and farm size will be the major factors in the increased total farm investment. A gradual increase in machinery and equipment investment is expected. Livestock investment will change relatively little.

Equity

Equity will decrease as capital will have to be borrowed to finance projected expansion.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liability including employer's liability automobile property damage & bodily injury liability
(2) Large medical bills and inability of a key person to function normally	Major Medical and Accident

Comprehensive Personal Liability

Previous discussion is appropriate here.

Major Medical and Accident

Discussion under corn belt grain farms is appropriate here.

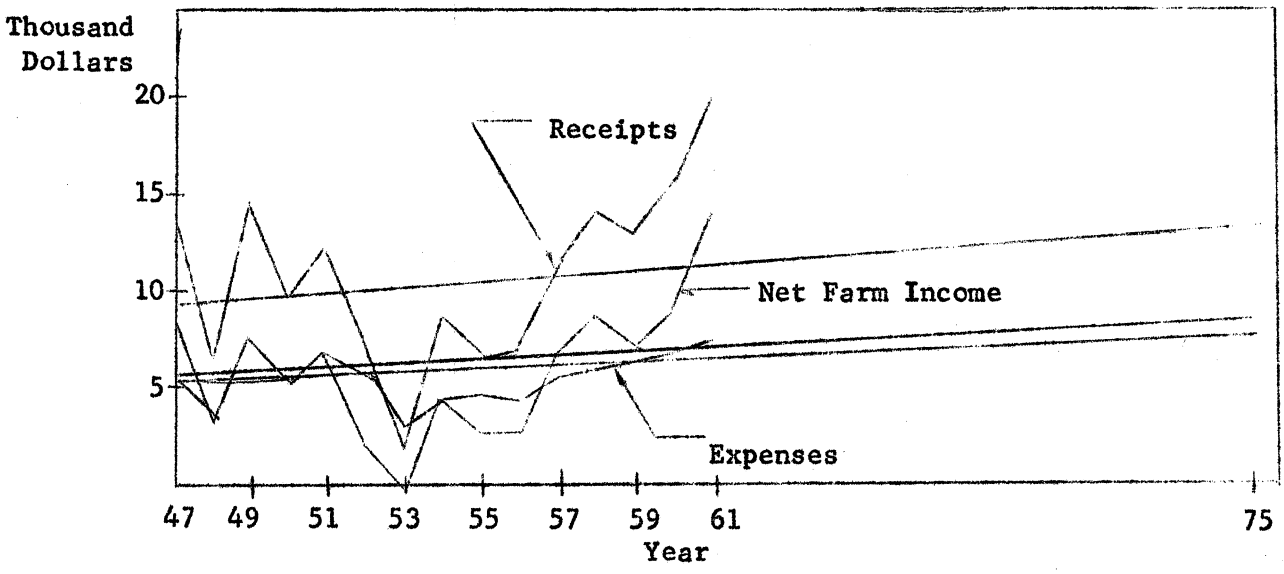


Figure 9. Receipts, Expenditures, and Income, Non-irrigated Cotton, High Plains, Texas, Projected to 1975

MEDIUM PRIORITY

(3) Loss of crops in field	Crop
(4) Death of operator	Term and Ordinary Life
(5) Loss of buildings and contents including stored grain through fire or windstorm	Fire and windstorm (assuming coverage includes contents)

Crop

The advisability of crop insurance varies yearly, depending on the crop prospect. When a good crop is in prospect, insurance will prevent drastic losses. However, the crop prospect at times will not be encouraging enough to warrant crop insurance. Dry weather is the major factor limiting yields periodically and thus affecting the advisability of crop insurance purchase.

Term and Ordinary Life & Fire and Windstorm

Previous discussion under corn belt grain farms is appropriate here.

LOW PRIORITY

(6) Damage to auto or truck	Auto and truck collision
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Property damage caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage

Auto and Truck Collision, Hospitalization, & Extended Property Coverage

Previous discussion under corn belt grain farms is appropriate here.

(10) WINTER WHEAT FARM--SOUTHERN PLAINS

	Average 1957-61	Projected 1975
Acres per farm	732	868
Crop acres harvested	341	408
Income		
Cash receipts	$12,116	$14,840
Cash expenses	-5,436	-8,000
Perquisites & inventory adj.	+1,158	+1,160
Net farm income	$ 7,838	$ 8,000

Projected Income Distribution in 1975

Family living	$3,500	
Business expansion	489	
Int. on borrowed capital	1,693	
Debt retirement	1,354	
Total committed		$ 7,036
Uncommitted		$ 964

Investment		
Total capital	$80,976	$112,840
Land	56,414	76,140
Buildings	9,184	12,400
Machinery & equipment	9,168	15,750
Livestock	4,566	6,300
Crops	1,644	2,250
Total investment per acre	$ 111	$ 130
Equity		
Assets	$80,976	$112,840
Liabilities	20,240	33,850
Net worth	$60,736	$ 78,990
Percent equity	75	70

Discussion of Projected Organization of Modal Winter Wheat Farm-Southern Plains

Farm Size

Farm size will continue to increase both in total acreage and in acres of cropland harvested.

Income

Cash expenditures will continue to increase, but less rapidly than in most other regions of the country. The technological change on winter wheat farms has not been as rapid as on corn belt farms and dairy farms. Cash receipts will increase due to higher yields, increased farm size, and more diversification into livestock enterprises. Net farm income was projected at $8,000 per year which is $840 less than the 1947-61 average but $162 higher than the 1953-61 average. Income fluctuates considerably from year to year and is dependent primarily on the wheat and sorghum crops.

Investment

Total farm investment will continue to increase due to larger farm size, higher land values, more mechanization, and more livestock.

Equity

Equity will decrease as capital will have to be borrowed to finance the projected expansion.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liabil' including employer's liability automobile property damage & bodily injury liability
(2) Large medical bills and inability of a key person to function normally	Major Medical and Accident

Comprehensive Personal Liability

Previous discussion is appropriate here.

Major Medical and Accident

Discussion under corn belt grain farms is appropriate here.

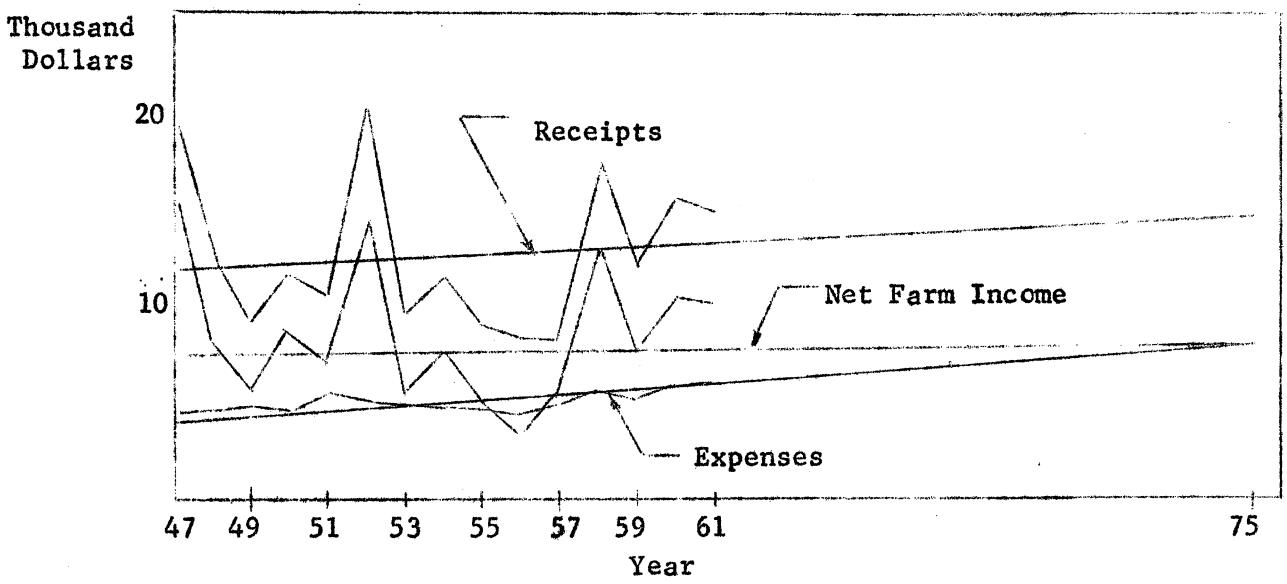


Figure 10. Cash Receipts, Expenditures, and Net Farm Income, Winter Wheat Farm, Southern Plains

MEDIUM PRIORITY

(3) Loss of crops in field	Crop
(4) Death of Operator	Term and Ordinary Life
(5) Loss of buildings and contents including stored grain through fire or windstorm	Fire and Windstorm (assuming coverage includes contents)

Crop

The advisability of crop insurance varies yearly depending on the crop prospect. When a good crop is in prospect, insurance can prevent drastic losses. However, the crop prospect at times will not be encouraging enough to warrant the cost of insurance. Weather is the major factor influencing crop yields and thus affecting the advisability of crop insurance purchase.

Term and Ordinary Life & Fire and Windstorm

Previous discussion for corn belt grain farms is appropriate here.

LOW PRIORITY

(6) Damage to auto or truck	Auto and truck collision
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Property damage caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage

Auto and Truck Collision, Hospitalization, and Extended Property Coverage

Previous discussion for corn belt grain farms is appropriate here.

(11) NEW MEXICO RANGE LIVESTOCK

	Average 1955-61	Projected 1975
Acres per farm	10,977	11,700
Crop acres harvested	18	19
Income		
Cash receipts	$ 12,691	$ 15,600
Cash expenses	-8,249	-10,600
Perquisites & inventory adj.	+1,294	+ 1,300
Net farm income	$ 5,736	$ 6,300

Projected Income Distribution in 1975

Family living	$3,000	
Business expansion	327	
Int. on borrowed capital	1,402	
Debt retirement	841	
Total committed		$ 5,570
Uncommitted		$ 730

Investment		
Total capital	$143,681	$186,950
Land	102,268	136,890
Buildings	11,363	15,210
Machinery & equipment	3,929	6,000
Livestock	24,774	27,500
Crops & supplies	1,347	1,350
Total investment per acre	$ 13	$ 16
Equity		
Assets	$143,681	$186,950
Liabilities	21,552	28,040
Net worth	$122,129	$158,910
Percent equity	85	85

Discussion of Projected Organization of Modal New Mexico Range Livestock

Farm Size

The projected 1975 ranch size is based on a continuation of the 1947-61 trend.

Income

Practically all of the cash receipts are from cattle, Crops are a very minor part of the operation. Severe fluctuation in income from year to year are common. Slight increases were projected in cash receipts, cash expenditures, and net farm income. Annual variation is much more apparent than any basic trends in cash receipts cash expenditures, and net farm income.

Investment

Total farm capital is expected to continue to increase, but at a decreasing rate. Increasing land values and ranch size will be the major factors influencing farm investment. Land values are expected to "level off" by 1975. An increase in machinery and equipment investment is expected.

Equity

The projected total debt was increased above the 1955-61 average. However, equity remained at the same level as there was sufficient net farm income available to maintain the equity position for the projected increase in acreage.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault (including motor vehicles)	Comprehensive personal liabilit including employer's liability automobile property damage & bodily injury liability
(2) Large medical bills and inability of a key person to function normally	Major medical and accident

Comprehensive Personal Liability and Major Medical and Accident

Previous discussion is appropriate here.

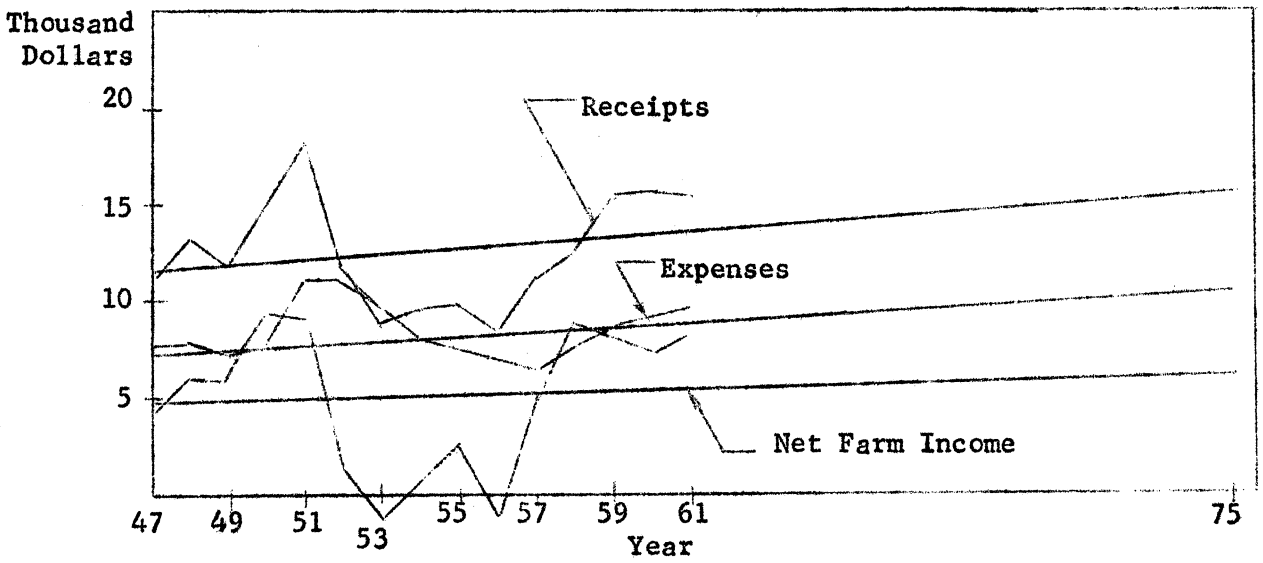


Figure 11. Cash Receipts, Cash Expenditures, and Net Ranch Income, Southwest Cattle Ranches

MEDIUM PRIORITY

(3) Death of Operator	Term and Ordinary Life

Term and Ordinary Life

Discussion under corn belt grain farm is appropriate here.

LOW PRIORITY

(4) Loss of buildings and contents including stored grain through fire or windstorm	Fire and windstorm (assuming coverage includes contents)
(5) Damage to auto or truck	Auto and Truck Collision
(6) Hospital, surgical, and doctor bills	Hospitalization
(7) Property damage caused by explosions, riots, vehicles, smoke, etc.	Extended Property Coverage
(8) Loss of crops in field	Crop Insurance

Fire and Windstorm, Auto and Truck Collision, Hospitalization, Extended Property Coverage, & Crop Insurance

Due to the high equity, relatively low building and machinery investment, and minor importance of crops, these types of insurance are desirable but not essential.

(12) COTTON-SPECIALTY CROP FARMS, SAN JOAQUIN VALLEY, CALIFORNIA

	Average 1955-61	Projected 1975
Acres per farm	334	404
Crop acres harvested	315	380
Income		
Cash receipts	$105,147	$152,000
Cash expenses	-76,011	-112,000
Perquisites & inventory adj.	+ 1,862	+ 1,900
Net farm income	$ 30,998	$ 41,900

Projected Income Distribution in 1975

Family living	$7,000	
Business expansion	3,008	
Int. on borrowed capital	4,425	
Debt retirement	2,655	
Total committed		$ 17,088
Uncommitted		$ 24,812

Investment		
Total capital	$261,505	$353,960
Land	193,544	263,080
Buildings	26,392	35,880
Machinery & equipment	22,221	30,000
Irrigation system	19,348	25,000
Total investment per acre	$ 783	$ 876
Equity		
Assets	$261,505	$353,960
Liabilities	65,376	88,490
Net worth	$196,129	$265,470
Percent equity	75	75

Discussion of Projected Organization of Modal Cotton-Specialty Crop Farms, San Joaquin Valley, California, Projected to 1975

Farm Size

The projected 1975 farm size is based on an assumed continuation of the 1947-61 trend.

Income

Cotton and potatoes are the major sources of cash receipts. Livestock is not an important enterprise. Cash expenditures, cash receipts, and net farm income were projected to 1975 based on the continuation of the 1947-61 trends. The expected increase in cash receipts is due to increased farm size, higher yields, and more efficient operation.

Investment

Total farm capital is expected to increase, at a decreasing rate. Increasing land values and farm size will be the major factors in the increased total farm investment. Land values are expected to begin "leveling off" by 1975. A gradual increase in machinery and equipment investment is expected to continue.

Equity

An equity of 75 percent was assumed. Due to the net farm income position, the equity ratio will be maintained.

Insurance Priorities

Insurable Hazard	Type of Insurance
HIGH PRIORITY	
(1) Injury to, or death of, another person or property damage with farm operator at fault(including motor vehicles)	Comprehensive personal liabilit including employer's liability automobile property damage & bodily injury liability
(2) Large medical bills and inability of a key person to function normally	Major Medical and Accident

Comprehensive Personal Liability and Major Medical and Accident

Previous discussion is appropriate here.

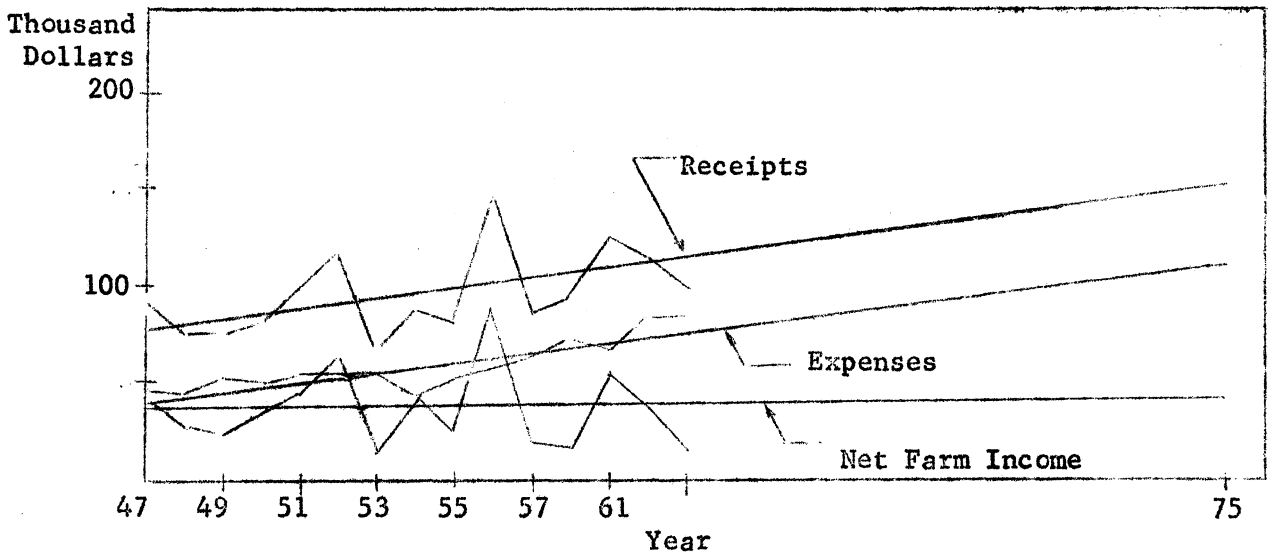


Figure 12. Cash Receipts, Cash Expenditures, and Net Farm Income, California Cotton, San Joaquin Valley, California

MEDIUM PRIORITY

(3) Loss of Crops in Field	Crop
(4) Death of Operator	Term and Ordinary Life
(5) Loss of buildings and contents including stored grain through fire or windstorm	Fire and Windstorm (assuming coverage includes contents)

Crop, Term and Ordinary Life, and Fire and Windstorm

A major crop loss would be critical. Buildings comprise a small part of this total investment. The death of a key person could force a termination of the business. Life insurance protection is important in that it enables the family to retain control and continue operation. This can be accomplished by hiring assistance or developing the heir's own managerial skill.

LOW PRIORITY

(6) Damage to auto and truck	Auto and truck collision
(7) Hospital, surgical, and doctor bills	Hospitalization
(8) Property damage caused by explosions, vehicles, riots, smoke, etc.	Extended property coverage

Auto and Truck Collision, Hospitalization, and Extended Property Coverage

Due to the high net farm income, none of these types of insurance is essential.

8. Number of Farms by Type and Economic Class

Type of farming as determined by major products sold, was stratified by value of product sales in this presentation. The selected type of farming is representative but is by no means exclusive for each of the 12 areas delineated.

Selected types of farms were divided into the following commercial classes in the 1949 and 1959 Census of Agriculture Reports: 1/

Commercial Class	Value of Farm Products Sold	
	1959	1949
I	$40,000 & over	$25,000 and over
II	$20,000 - $39,999	$10,000 - $24,999
III	$10,000 - $19,999	$ 5,000 - $ 9,999
IV	$ 5,000 - $ 9,999	$ 250 - $ 4,999
V-VI	$ 50 - $ 4,999	

Most of the preceding analysis was based on the 1959 census information.

The majority of the commercial farms (67 percent) in the United States had less than $10,000 of farm product sales in 1959 (see Table 1). A farm operator earning less than $10,000 gross income will be able to purchase a minimal amount of insurance however great the hazard.

Table 1. Number and Percent of Commercial Farms, by Economic Class, U. S., 1959

Class	Farm Products Sold	No. of Farms	Percent of Total	Cumulative No. of Farms	Cumulative Percent of Total
I	$40,000 & over	101,835	4.2	101,835	4.2
II	20,000 - $39,999	210,162	8.7	311,977	12.9
III	10,000 - 19,999	482,478	20.0	794,475	32.9
IV	5,000 - 9,999	653,150	27.1	1,447,625	60.0
V-VI	50 - 4,999	965,292	40.0	2,412,917	100.0
Total		2,412,917	100.0		

Source: United States Census of Agriculture, 1959, General Report, Volume II, p. 1192.

Classes I, II, and III comprising nearly four-fifths of a million commercial farms tended to be larger and more specialized than farms with product sales of less

1/ U. S. Census of Agriculture, 1959 and 1949.

than $10,000 annually. Production tends to be concentrated on one saleable product. These farms produced the bulk (74.7 percent) of the nation's saleable farm products. Numbers of farms producing $10,000 or more gross income annually have increased while number of farms producing less than $10,000 decreased.

Table 2. Number of Commercial Farms, by Value of Farm Products Sold, United States, Selected Years

Farm Products Sold	1950	1954	1959
$10,000 & over	484,382	582,948	794,475
5,000 - $9,999	721,211	706,929	653,150
2,500 - 4,999	882,302	811,965	616,819
50 - 2,499	1,618,517	1,225,775	348,473
TOTAL	3,706,412	3,327,617	2,412,917

Sources: U. S. Census of Agriculture, 1959, General Report, Vol. II, p. 1192
U. S. Census of Agriculture, 1954, General Report, Vol. II, p. 1132
U. S. Census of Agriculture, 1950, General Report, Vol. II, p. 1110

Approximately 40 percent of the 310,000+ commercial farms in the "Northeast Dairy" area had dairy as the main income producing enterprise. These farms averaged 212 acres in size. (See Table 3)

The "Wisconsin Dairy" area contained a comparatively high percentage of farms devoted to milk production. Fifty-three percent of the 290,000+ commercial farms fell into this class. These farms were somewhat smaller (187 acres) than the previous area and had a higher production per cow.

Moving into the Corn Belt, we find grain and meat production. One-third (33 percent) of the 360,000 farms in the eastern Corn Belt states had grain production as the most important source of income. Fourty-six percent of the 590,000+ farms were engaged in producing hogs and beef. Farms in the eastern states were smaller (228 acres) than those in the western states (394 acres).

A more diversified type of farming was found in the "General Farming" area. This region had the largest number of commercial farms, each averaging 231 acres.

Of the 1,060,000 commercial farms in the area, approximately 10 percent were classed as general farms. The income on these farms came from several sources, no one dominating all others.

Fifty-nine percent of the nearly 170,000 commercial farms in Virginia and North Carolina engage in tobacco and cotton production. These farms were smaller (75 acres) and the income was less than the previously discussed types although investment per acre was comparable (see Table 3). The majority of these units were primarily tobacco rather than cotton producers.

In the "Piedmont Cotton" area 34 percent of 160,000+ commercial farms produced cotton. These farms were larger than the previous class of cotton farms averaging 109 acres but the land was less valuable per acre.

Larger, more mechanized farms were found in the "Texas Cotton" area. Farms in the area average 323 acres, and comprised 34 percent of the 230,000 commercial farms. The non-irrigated land was used for cotton production.

The Mississippi Delta is dotted with many small farms and a few large units. Typically, these farms averaged 130 acres of relatively high value land. As a result, total investment per acre was high. Of the 210,000 commercial farms in the area, 45 percent grew cotton as their main crop.

The "Wheat and Small Grain" area is scattered over many states. In this region, the average for all of the states showed 31 percent of 550,000+ commercial farms devoted in wheat production. These farms had large acreages (634 acres) and were operated on a fairly extensive scale.

Farms in the "Range Livestock" area had the largest average acreage of all types studied. The farms averaged 5,195 acres of relatively low value land. Ten percent of the nearly 550,000 commercial farms were classed as "Range Livestock" farms.

The cotton farms in California accounted for only 8 percent of the state's 65,000+ commercial farms. The farms were smaller in acreage (400 acres) but the investment per acre was very high due to intensive practices, irrigation, and the great amount of mechanization used.

An attempt was made to project the number of farms by type and economic class to 1975. However, this is complicated by differing census definitions and price index shifts to the extent that a reliable projection is impossible with the available data. For example, the number of farms with sales over $10,000 increased by 64 percent from 1950 to 1959. If this is projected as a straight line to 1975, the number of farms will be double that in 1959. This is absurd because insufficient land area will be released by smaller farms going out of business.

Another problem arises when considering the price indexes. Consider the difference in the wholesale price index between 1950 (86.8) and 1959 (100.6). Farms in each census are stratified according to the respective dollar values. The change in this value also changes the definition of the strata. Therefore, the number of farms with sales over $10,000 in 1959 would actually be a different group of farms than in 1949. The extent of this change cannot be ascertained, thus it does not provide a reliable basis for projection.

Table 3. Number of Commercial Farms, by Selected Type and Economic Class,* United States, 1959

Area	Number of Commercial Farms	Selected Type		Number of Farms					Percent of Farms				
		Number	Percent**	Class I	Class II	Class III	Class IV	Class V-VI	Class I	Class II	Class III	Class IV	Class V-VI
N. E. Dairy	313,670	125,725	40.1	2,484	14,038	39,686	41,632	27,885	2.0	11.2	31.6	33.1	22.2
Wisconsin Dairy	292,034	154,244	52.8	415	4,871	34,790	63,344	50,824	0.3	3.2	22.6	41.1	33.0
Cash Grain Corn Belt	357,309	118,749	33.2	1,255	10,007	32,316	36,540	38,631	1.1	8.4	27.2	30.8	32.5
Hog Beef Fattening Corn Belt	594,932	276,533	46.5	15,496	35,792	70,802	81,735	72,708	5.6	12.9	25.6	29.6	26.3
General Farming	1,063,212	102,234	9.6	1,348	5,071	16,863	31,012	47,940	1.3	5.0	16.5	30.3	46.9
Tobacco-Cotton	169,605	100,001	59.0	59	770	6,436	27,301	65,435	0.1	0.7	6.4	27.3	65.4
Piedmont Cotton	162,138	54,322	33.5	255	617	1,995	6,074	45,381	0.5	1.1	3.7	11.1	83.5
Texas Cotton	229,170	71,744	31.3	6,301	9,428	12,962	14,676	28,377	8.7	13.0	18.0	20.4	39.9
Delta Cotton	208,411	94,651	45.1	3,356	3,190	6,014	13,506	68,585	3.5	3.4	6.4	14.3	72.5
Wheat & Small Grain	551,702	171,856	31.2	4,556	15,399	44,441	59,156	48,304	2.7	9.0	25.9	34.4	28.1
Range Livestock	547,102	54,635	10.0	5,917	6,928	10,093	12,836	18,861	10.8	12.7	18.5	23.5	34.5
California Cotton	66,929	5,087	7.6	1,603	965	1,006	872	641	31.5	19.0	19.8	17.1	12.6

* Economic Class based on gross income as follows: Class I $40,000+; Class II $20,000-$39,999; Class III $10,000- $19,999; Class IV $5,000-$9,999; Classes V-VI $50-$4,999.

** Percent selected type of all commercial farms in the area.

Source: United States Census of Agriculture, 1959, General Report, Volume II, No. 1-48.

Table 4. Number of Commercial Farms, by Selected Type and Economic Class*, United States, 1950

Area	Number of Commercial Farms	Selected Type		Number of Farms				Percent			
		Number	Percent **	Class I	Class II	Class III	Class IV-VI	Class I	Class II	Class III	Class IV-VI
N. E. Dairy	489,863	178,085	36.4	3,487	27,403	55,487	91,708	2.0	15.3	31.0	51.3
Wisconsin Dairy	409,939	212,047	51.7	590	11,846	57,669	141,942	0.0	5.6	27.2	67.0
Cash Grain Corn Belt	525,531	119,649	22.8	2,047	23,724	36,409	57,469	1.7	19.8	30.4	48.0
Hog-Beef Fattening Corn Belt	784,539	335,935	42.8	14,889	66,365	106,271	148,410	4.4	19.8	31.6	44.2
General Farming	1,699,806	247,772	14.6	1,328	13,654	44,645	188,145	0.5	5.5	18.0	75.9
Tobacco-Cotton	271,782	195,071	71.8	268	1,688	15,777	177,338	0.1	0.9	8.1	91.0
Piedmont Cotton	324,729	157,039	48.4	323	1,186	3,374	152,156	0.2	0.8	2.1	96.9
Texas Cotton	389,974	165,014	42.3	6,199	18,093	27,019	113,703	3.8	11.0	16.4	68.9
Delta Cotton	408,117	240,797	59.0	1,954	3,825	9,299	225,719	0.8	1.6	3.9	93.7
Wheat & Small Grain	741,935	203,774	27.5	6,261	34,173	66,552	96,788	3.1	16.8	32.7	47.5
Range Livestock	D A T A N O T A V A I L A B L E										
California Cotton	99,164	5,673	5.7	1,358	1,650	1,120	1,545	23.9	29.1	19.7	27.2

* Economic Class based on gross income as follows: Class I $25,000+; Class II $10,000-$24,999; Class III $5,000-$9,999; Classes IV-VI $250-$4,999.

** Percent selected type of all commercial farms in the area.

Source: United States Census of Agriculture, 1950, General Report, Volume II, No. 1-48.

9. SUMMARY

Twelve type of farming areas were delineated and each was represented by a typical farm situation in this study. The selected farm firm representatives are not the only type but an important fraction of all farms in each area. Each area was found to have some unique insurable hazards. Factors related to and influencing hazards have a financial bearing on the business. Characteristics of the major enterprise, size of farm, labor required, and operator's equity influence the insurance needs and the capacity of the farm operator to purchase insurance.

Agriculture of 1975 will be characterized by larger, more specialized units. As size of farms increases and more land is taken out of production, the number of farms will decrease. Investment values per acre will increase. However, the equity position of the operator will likely decrease. As the resource base is expanded, both production costs and returns are expected to increase but the net effect will be a slight increase in farm income. Margin of return per unit produced will decline;consequently, more units of output will be achieved in order to maintain and improve income.

Types of Insurable Hazards

Liability protection is needed by every farm business operator. A farmer may be subject to a lawsuit and judgment resulting from accident or other negligent acts. Damages awarded could force liquidation of most farm business operations. Liability protection is absolutely necessary.

Another high priority hazard includes major medical and accident coverage and compensation. Medical bills and removal of a key person from regular performance can severely damage and may force liquidation of the business. This type of protection is highly desirable, considering the capital involved in most farm business operations and the important (key) role of the operator.

Fire and windstorm insurance needs depend on the buildings required for a successful business operation. For example, a dairy farm business demands a much greater building investment than a cash grain operation. While buildings contribute to production in both instances, the dairy operator cannot function without his buildings and facilities. The cash grain operator can.

Crop insurance is comparable to fire and windstorm insurance in this respect. A cash grain farmer with his more specialized cropping system would have a greater need for protection than the livestock farmer or the operator of a general farm. The more specialized the source of income, the greater the need for protection.

Insurance on the owner's life may be advisable, depending on his equity position, his managerial responsibilities, and whether or not the death of a key person will force liquidation. A large commercial farm, heavily in debt and lacking other resources is more in need of this protection than the smaller family farm with a high equity. Similarly, a farm with complex managerial needs has a greater need for operator life insurance protection than a farm firm that can be managed by other family members.

Usually, the loss in value of a farm vehicle will not present a serious financial burden. The cost of repair or replacements can be met within the business. As a result, auto and truck collision coverage has a low priority.

Extended property coverage is usually of low priority because typical losses incurred are relatively small and can be met by the farm business.

Regular hospitalization protection is relatively expensive and offers protection which could be handled within the farm business structure.

The question of theft comes up occasionally with respect to the farm business. Does the amount of loss due to theft suffered by the average farmer justify the cost of hiring protection in the form of insurance? Farms are naturally located

away from centers of population and crime. Administrative costs of providing protection against theft could be prohibitive.

The responsibility for grain stored off the farm is another question. An elevator receives payment for rendering their service and logically has the risk responsibility.

The insurance needs for each farm situation are unique. It is up to the farmer and his agent to weigh the risks against the cost of hiring protection and arrive at an acceptable insurance program for the farm business.

The Potential Farm Insurance Market

Commercial farm numbers have been declining at a rapid pace during the past two decades in the United States. Pressures on agriculture and employment opportunities in other segments of our economy along with many technological developments have been responsible for these shifts. Despite the adjustments made, a large number of farm families have a relatively low income. For example, with the exception of the large scale California cotton farms, half or more of the selected types of farms had less than $10,000 annual gross income. More than a fourth of the commercial farms had an annual gross income of $5,000 or less. It is also of interest to note that units from which the annual gross income exceeded $20,000 was a small percentage of the total commercial farms. In six of the selected types of farming areas less than 10 percent of the farmers received a gross income of $20,000 or more. In the remaining three areas there were more than 20 percent of the farmers in this class.

The farm business, like any other, must develop a gross income before a spendable net income is available. Gross farm income for one type of farming operation may have a quite different relationship to net income than on another. Trends indicate that numbers of farm businesses with gross incomes of $10,000 or less are declining at a rapid pace, that numbers of farm businesses with a gross in excess of $25,000 are increasing at a modest rate, and farms with a gross of $10,000 to $25,000 have been holding steady. The one major exception to this is found in the small scale tobacco farms in the south.

Agriculture is still characterized by a large number of small farm business firms. Most organizations are family owned and operated. Some of the large scale types prove to be exceptions, such as the California cotton and the range livestock types.

In general, a small amount of shifting is anticipated. The primary change will occur in movement out of production by the extremely small scale operator. Other farm operators of similar size will most likely expand through consolidation. Overcapitalization and institutional forces will be deterrents preventing the development of a large number of high income farm units in the near future.

Appendix A

Number of Commercial Farms, by Selected Type State and Economic Class, *
United States, 1959

Area and State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class				
			I	II	III	IV	V-VI
NORTHEAST DAIRY							
Connecticut	5,378	2,416	197	612	806	561	240
Maine	9,785	3,257	76	307	900	1,094	880
Maryland	15,979	5,070	193	914	2,043	1,280	640
Massachusetts	7,153	2,817	137	593	965	641	481
New Hampshire	3,419	1,803	37	199	569	596	402
New Jersey	11,726	2,744	198	915	1,096	415	120
New York	56,760	39,072	711	4,514	13,358	13,268	7,221
Ohio	85,008	22,201	154	1,185	5,674	8,163	7,025
Pennsylvania	58,843	31,831	265	2,742	10,211	11,925	6,688
Rhode Island	1,086	420	25	105	135	105	50
Vermont	9,006	7,833	162	867	2,531	2,676	1,597
Virginia	49,527	6,261	329	1,085	1,398	908	2,541
	313,670	125,725	2,484	14,038	39,686	41,632	27,885
WISCONSIN DAIRY							
Michigan	65,042	24,673	120	1,157	6,329	8,223	8,844
Minnesota	120,301	43,203	103	1,098	8,570	17,574	15,858
Wisconsin	106,691	86,368	192	2,616	19,891	37,547	26,122
	292,034	154,244	415	4,871	34,790	63,344	50,824
CASH GRAIN CORN BELT							
Illinois	123,328	58,753	834	6,570	20,105	18,529	12,715
Indiana	83,931	25,825	269	2,075	6,428	7,670	9,383
Michigan	65,042	14,267	52	487	2,100	3,911	7,717
Ohio	85,008	19,904	100	875	3,683	6,430	8,816
	357,309	118,749	1,255	10,007	32,316	36,540	38,631
HOG BEEF FATTENING CORN BELT							
Iowa	154,329	96,237	7,328	17,100	29,326	26,931	15,552
Kansas	83,096	28,740	2,050	4,157	6,882	7,884	7,767
Minnesota	120,301	28,245	1,257	3,574	7,911	8,580	6,923

(con't)

Area and State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class I	II	III	IV	V-VI
Missouri	106,678	52,690	1,087	2,982	8,545	14,982	25,094
Nebraska	80,847	36,864	2,910	5,319	10,297	10,914	7,424
South Dakota	49,681	33,757	864	2,660	7,841	12,444	9,948
	594,932	276,533	15,496	35,792	70,802	81,735	72,708
GENERAL FARMING							
Arkansas	53,462	2,040	60	113	266	378	1,223
Georgia	61,955	12,648	350	875	2,182	4,017	5,224
Illinois	123,328	7,677	95	730	2,235	2,551	2,066
Indiana	83,931	9,095	76	456	2,117	3,121	3,325
Kansas	83,096	6,584	58	261	1,213	2,540	2,512
Kentucky	86,651	10,267	65	246	1,085	2,796	6,075
Maryland	15,979	1,054	13	83	201	305	452
Missouri	106,678	7,726	67	317	1,180	2,477	3,685
North Carolina	120,078	10,680	129	456	1,439	3,179	5,477
Ohio	85,008	10,117	90	520	2,053	3,462	3,992
Oklahoma	56,942	6,036	66	384	1,101	2,036	2,449
South Carolina	42,333	4,096	165	293	556	989	2,093
Tennessee	82,639	9,666	66	177	728	2,127	6,568
Virginia	49,527	3,939	48	153	459	972	2,307
West Virginia	12,605	609	----	7	48	62	492
	1,063,212	102,234	1,348	5,071	16,863	31,012	47,940
TOBACCO-COTTON							
North Carolina	120,078	82,594	58	752	5,934	24,652	51,198
Virginia	49,527	17,407	1	18	502	2,649	14,237
	169,605	100,001	59	770	6,436	27,301	65,435
PIEDMONT COTTON							
Alabama	57,850	29,765	150	297	944	3,393	24,981
Georgia	61,955	12,476	59	165	714	1,765	9,773
South Carolina	42,333	12,081	46	155	337	916	10,627
	162,138	54,322	255	617	1,995	6,074	45,381

(con't)

Area and State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class I	II	III	IV	V-VI
TEXAS COTTON							
Louisiana	34,715	14,906	367	396	610	1,590	11,943
Oklahoma	56,942	5,384	91	333	1,027	1,667	2,266
Texas	137,513	51,454	5,843	8,699	11,325	11,419	14,168
	229,170	71,744	6,301	9,428	12,962	14,676	28,377
DELTA COTTON							
Arkansas	52,462	24,892	1,706	1,856	3,587	4,945	12,798
Mississippi	73,310	46,589	1,460	957	1,262	4,278	38,632
Tennessee	82,639	23,170	190	377	1,165	4,283	17,155
	208,411	94,651	3,356	3,190	6,014	13,506	68,585
WHEAT & SMALL GRAIN							
Colorado	26,145	6,693	368	1,052	1,937	1,881	1,455
Kansas	83,096	39,997	979	3,416	10,451	13,775	11,376
Minnesota	120,301	27,271	203	1,311	6,320	10,705	8,732
Montana	23,519	8,820	436	1,634	2,599	2,371	1,780
Nebraska	80,847	30,828	383	2,534	9,222	11,306	7,383
North Dakota	50,407	27,911	229	1,560	6,628	10,683	8,811
New Mexico	9,799	626	53	74	142	187	170
Oklahoma	56,942	14,817	195	1,277	4,064	5,008	4,273
Oregon	22,802	2,518	431	525	546	388	628
South Dakota	49,681	6,305	27	188	953	2,035	3,102
Washington	28,163	6,070	1,252	1,828	1,579	817	594
	551,702	171,856	4,556	15,399	44,441	59,156	48,304
RANGE LIVESTOCK							
Arizona	5,073	1,156	203	183	264	226	280
California	66,929	4,209	722	498	764	997	1,228
Colorado	26,145	3,682	514	571	791	828	978
Idaho	25,571	850	174	142	202	157	175
Montana	23,519	4,314	533	848	1,128	1,024	781
Nebraska	80,847	1,649	246	282	371	306	444

(con't)

Area and State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class I	II	III	IV	V-VI
Nevada	1,625	410	154	78	79	44	55
New Mexico	9,799	3,771	404	446	676	788	1,457
North Dakota	50,407	440	14	54	97	87	188
Oregon	22,802	1,905	287	324	382	426	486
South Dakota	49,681	2,342	209	370	632	645	486
Texas	137,513	25,084	1,712	2,245	3,628	6,164	11,335
Utah	10,944	1,389	170	238	292	393	296
Wasnington	28,163	789	105	118	129	185	252
Wisconsin	8,084	2,645	470	531	658	566	420
	547,102	54,635	5,917	6,928	10,093	12,836	18,861
CALIFORNIA COTTON							
California	66,929	5,087	1,603	965	1,006	872	641

* Economic Class based on gross income as follows: Class I $40,000+; Class II $20,000-$39,999; Class III $10,000-$19,999; Class IV $5,000-$9,999; Classes V-VI $50-$4,999.

Source: United States Census of Agriculture, 1959, General Report, Volume II, No. 1-48.

Appendix B

Number of Commercial Farms, by Selected Type State and Economic Class, *
United States, 1950

Area & State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class I	II	III	IV-VI
NORTHEAST DAIRY						
Connecticut	9,154	3,845	303	1,166	1,270	1,106
Maine	15,790	4,999	44	401	1,216	3,338
Maryland	23,655	6,828	231	1,793	2,703	2,101
Massachusetts	13,173	4,515	258	1,170	1,367	1,720
New Hampshire	6,385	3,003	68	453	877	1,605
New Jersey	18,055	4,041	415	1,841	1,285	500
New York	87,967	55,169	1,025	9,533	20,401	24,210
Ohio	134,595	32,556	98	2,042	7,346	23,070
Pennsylvania	88,319	43,541	409	5,738	13,790	23,604
Rhode Island	1,585	595	64	155	166	210
Vermont	13,082	10,823	147	1,799	3,959	4,918
Virginia	78,103	8,170	425	1,312	1,107	5,326
	489,863	178,085	3,487	27,403	55,487	91,708
WISCONSIN DAIRY						
Michigan	106,847	45,400	133	2,123	9,191	33,953
Minnesota	157,239	50,118	98	2,243	12,156	35,621
Wisconsin	145,853	116,529	359	7,480	36,322	72,368
	409,939	212,047	590	11,846	57,669	141,942
CASH GRAIN CORN BELT						
Illinois	160,867	60,532	1,549	17,598	21,501	19,884
Indiana	123,222	22,458	315	3,445	6,170	12,528
Michigan	106,847	14,972	26	753	2,797	11,396
Ohio	134,595	21,687	157	1,928	5,941	13,661
	525,531	119,649	2,047	23,724	36,409	57,469
HOG BEEF FATTENING CORN BELT						
Iowa	187,702	120,306	6,463	32,988	44,181	36,674
Kansas	112,338	36,695	2,201	5,677	9,075	19,742
Minnesota	157,239	35,392	975	8,143	13,733	12,641

(con't)

Area & State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class I	II	III	IV-VI
Missouri	164,600	78,099	1,424	5,475	13,968	57,232
Nebraska	99,934	41,380	2,626	8,286	13,708	16,760
South Dakota	62,726	24,063	1,200	5,896	11,606	5,361
	784,539	335,935	14,889	66,365	106,271	148,410
GENERAL FARMING						
Arkansas	113,189	7,796	52	108	300	7,336
Georgia	122,355	16,907	157	633	1,749	14,368
Illinois	160,867	25,311	242	3,386	8,122	13,561
Indiana	123,222	27,757	124	2,499	7,685	17,449
Kansas	112,338	22,228	104	1,147	5,299	15,678
Kentucky	134,595	23,239	70	712	2,478	19,979
Maryland	23,655	2,839	41	287	553	1,958
Missouri	164,600	21,090	90	599	3,170	17,231
North Carolina	193,679	12,076	20	277	901	10,878
Ohio	134,595	31,033	99	2,207	9,175	19,552
Oklahoma	92,808	17,303	124	881	2,511	13,787
South Carolina	84,231	6,241	81	258	476	5,426
Tennessee	138,232	21,697	61	317	1,361	19,958
Virginia	78,103	9,352	63	296	754	8,239
West Virginia	23,337	2,903	------	47	111	2,745
	1,699,806	247,772	1,328	13,654	44,645	188,145
TOBACCO-COTTON						
North Carolina	193,679	160,163	153	1,269	14,039	144,702
Virginia	78,103	34,908	115	419	1,738	32,636
	271,782	195,071	268	1,688	15,777	177,338
PIEDMONT COTTON						
Alabama	118,143	75,245	133	451	1,478	73,183
Georgia	122,355	41,622	85	442	1,050	40,045
South Carolina	84,231	40,172	105	293	846	38,928
	324,729	157,039	323	1,186	3,374	152,156

(con't)

Area & State	Number of Commercial Farms	Number of Selected Type	Number by Economic Class I	II	III	IV-VI
TEXAS COTTON						
Louisiana	70,473	42,579	235	415	1,112	40,817
Oklahoma	92,808	15,802	211	1,326	3,380	10,885
Texas	226,693	106,633	5,753	16,352	22,527	62,001
	389,974	165,014	6,199	18,093	27,019	113,703
DELTA COTTON						
Arkansas	113,189	73,432	1,004	2,374	5,640	64,414
Mississippi	156,696	122,467	809	880	1,885	118,893
Tennessee	138,232	44,898	141	571	1,774	42,412
	408,117	240,797	1,954	3,825	9,299	225,719
WHEAT & SMALL GRAIN						
Colorado	36,426	9,396	712	2,110	2,690	3,884
Kansas	112,338	40,973	1,114	6,310	12,520	21,029
Minnesota	157,239	24,842	265	4,285	9,030	11,262
Montana	29,999	10,370	519	2,336	2,990	4,525
Nebraska	99,934	33,088	440	4,271	11,876	16,501
North Dakota	62,650	39,109	478	5,902	13,999	18,730
New Mexico	14,056	2,413	88	405	706	1,214
Oklahoma	92,808	19,962	590	3,687	6,262	9,423
Oregon	34,404	3,562	451	803	766	1,542
South Dakota	62,726	13,667	151	1,675	4,366	7,475
Washington	39,355	6,392	1,453	2,389	1,347	1,203
	741,935	203,774	6,261	34,173	77,552	96,788
RANGE LIVESTOCK	D A T A N O T A V A I L A B L E					
C ALIFORNIA COTTON						
California	99,164	5,673	1,358	1,650	1,120	1,545

* Economic class based on gross income as follows: Class I $25,000+; Class II $10,000-$24,999; Class III $5,000-$9,999; Class IV-VI $250-$4,999

Source: United States Census of Agriculture, 1950, General Report, Volume II, No. 1-48